

AMERICAN SOCIETY OF CIVIL ENGINEERS

INSTITUTED 1852

APPLICATIONS FOR ADMISSION AND FOR TRANSFER

The Constitution provides that the Board of Direction shall elect or reject all applicants for *Admission* or for *Transfer*, and, in order to determine justly the eligibility of each candidate, the Board must depend largely upon the Membership for information.

This list is issued to members in every grade for the purpose of securing all such available information, and every member is urged to scan carefully each monthly list of candidates and to furnish the Board with data in regard to any applicant which may aid in determining his eligibility. It is the *Duty* of all *Members* to the *Profession* to assist the Board in this manner.

It is especially urged, in communications concerning applicants, that errors in the record be pointed out and a *Definite Recommendation as to the Proper Grading in Each Case* be given, inasmuch as the grading must be based upon the opinions of those who know the applicant personally, as well as upon the nature and extent of his professional experience. If facts exist derogatory to the personal character or to the professional reputation of an applicant, they should be promptly communicated to the Board. *Communications Relating to Applicants are considered by the Board as Strictly Confidential.*

The Board of Direction will not consider the applications herein contained from residents of North America until the expiration of thirty (30) days, and from Non-Residents of North America until the expiration of ninety (90) days from February 1, 1924.

MINIMUM REQUIREMENTS FOR ADMISSION

Grade	General Requirement	Age	Length of Active Practice	Responsible charge of work
Member	Qualified to design as well as to direct work	30 years	10 years*	5 years
Associate Member	Qualified to direct work	25 years	6 years*	1 year
Junior	Qualified for sub-professional work	18 years†	2 years*	
Affiliate	Qualified by scientific acquirements or practical experience to co-operate with engineers			
Fellow	Contributor to the permanent funds of the Society			

* Graduation from a school of engineering of recognized reputation is equivalent to 2 years' active practice.

† Membership ceases at age of 32 unless transferred to higher grade.

AMERICAN SOCIETY OF CIVIL ENGINEERS

LIST OF APPLICANTS.

Names and Addresses of Applicants for Admission and for Transfer on this Preliminary List,
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GARR, BANARSI L.	Cawnpore, India.	36	TAYLOR, BILL N.	Maracalbo, Venezuela	45
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HAGGARD, ASHLEY P.	Sanford, Fla.	37	WEBB, CHARLES G.	Oklahoma City, Okla.	45
HALE, JOHN F.	Dayton, Ohio.	37	WHEAT, THOMAS E. M.	Detroit, Mich.	51
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The fact that applicants give the names of certain members as references does not necessarily mean that such members endorse.

The numbers to the left of each record indicate the serial number of the applicant for the current year, and the district in which he resides.

The note in heavy type represents, in each case, the estimate of the Applicant of the time he has spent in Active Practice, Responsible Charge, and in Designing. These figures do not include the allowance of two years for graduation nor one-third of a year for each academic year successfully completed in an engineering college without graduation.

FOR ADMISSION

ADAMS, ROLF CHERRY—P. O. Box 632, Auckland, New Zealand—(Age 28. Born Auckland, New Zealand.) (B. E., Canterbury Coll., Univ. of New Zealand, 1917.)—Dec. 1913 to Feb. 1914, Dec. 1914 to Feb. 1915 and Dec. 1915 to Feb. 1916 on work of apprentice, fitting shop, New Zealand Govt. Rys., repairs shop, Newmarket: Dec. 1916 to Feb. 1917 (1) Draftsman and Inspector, Auckland Harbor Board, wharf details and setting out and checking reclamation work: Dec. 1919 to Dec. 1920 Instrumentman and Draftsman, Hamilton Borough, New Zealand, layout and levels, sewerage system and design of details (£110 000), permanent levels, roads and storm water drainage, design of culverts: Dec. 1920 to Aug. 1922 Asst. Engr., Toogood, Jones & Holmes, Cons. Engrs., design of reinforced concrete buildings (£150 000), reinforced concrete arch dam and pipe line details, reinforced concrete bridges (£23 500), and reservoir and pump house: Aug. 1922 to Oct. 1923 Asst. Engr., Toogood & Jones, Cons. Engrs., design steel and reinforced concrete power house (£12 000), and reinforced concrete hydro-electric power house (£5 000), buildings (£15 000) and bridges (£4 000); sewerage layout and design (£60 000), and reinforced concrete swimming baths (£3 000): Oct. 1923 to date Designing Engr., Dominion Bridge Co., Ltd., in charge of bridge design, also acting temporarily as Secy. (Active practice 4.4 years: Sub-Prof. work 0.3: Prof. work 4.1: Res. Ch. 3.1: Design 1.4). Refers to E. Crow, F. Finch. (Applies in accordance with Sec. 1, Art. 1, of the By-Laws.)

ADAMS, THOMAS CALDWELL—318 Highland Rd., Ithaca, N. Y.—(Age 22. Born Salt Lake City, Utah.) (B. S. in Civ. Eng., School of Mines and Eng., Univ. of Utah, 1922.)—83 At present Graduate Student, Coll. of Civ. Eng., Cornell Univ.; Drainage Asst. to Senior Drainage Engr., U. S. Dept. of Agriculture, engineering research: refers to F. A. Barnes, (3) R. A. Hart, R. B. Ketchum, R. R. Lyman, E. W. Schoder, F. J. Seery.

AICHEL, WALTER AUGUST—404 Candler Bldg., Atlanta, Ga.—(Age 32. Born Charleston, S. C.) (B. S. in Civ. Eng., Ga. School of Tech., 1912.)—June to Sept. 1911 Instrumentman for James O'Hear, C. E., on survey and reclamation work in and around Charleston, S. C.: June 1912 to Aug. 1917 Draftsman, Designer, Estimator, and Sales Engr., (10) Trussed Concrete Steel Co., Atlanta, Ga.: Aug. 1917 to July 1919 with U. S. Army, 3 months in training camp; Nov. 1917 to June 1918 Capt., and June 1918 to July 1919 Major of Artillery, 9 months overseas with 142d F. A.: July 1919 to Dec. 1920 Structural Engr., Southern Ferro Concrete Co., Atlanta, Ga.: Dec. 1920 to Jan. 1922 Asst. Div. Engr., State Highway Dept. of Georgia, Atlanta, Newman and Griffin, Ga.: Jan. 1922 to date Dist. Engr., Corrugated Bar Co., Atlanta. (Active practice 11.5 years: Res. Ch. 9.5: Design 10.5). Refers to B. M. Hall, J. H. Johnston, R. G. Lose, P. H. Norcross, W. C. Spiker, E. A. Stuhman, W. S. Thomson, J. T. Wardlaw.

ANDREWS, WILLIAM ORUS—Care, The Rice Inst., Houston, Tex.—(Age 36. Born Oak Park, Ill.) (B. S. in C. E., Univ. of Ill., 1913.)—Sept. 1908 to Sept. 1909 Chainman, 85 Northern Pacific Ry.: June to Sept. of years 1910 and 1911 Computer and Asst. to City Engr., Glendive, Mont., street paving, sanitary sewers, settling basin, mapping: June to (15) Sept. 1912 Foreman, Hall Signal Co., track bonding: June to Sept. 1913 Rodman,

Bureau of Constr., Water Dept., Chicago, water tunnels and pump settings: Sept. 1913 to June 1917 Instructor, Dept. of Mechanics, Rensselaer Polytechnic Inst.: June to Sept. 1915 Engr. of Tests, Prouditt Laboratory, Rensselaer Polytechnic Inst.: June to Sept. 1916 Draftsman, Kansas City Terminal Ry. Co., plate girder details: June 1917 to April 1918 Concrete Designer, Stone & Webster, Boston, Mass., industrial buildings, Watertown and Rock Island Arsenals, Hog Island Ship Yard: April 1918 to June 1919 Designer with Fay, Spofford & Thorndike, Boston, Boston Army Supply Base: Sept. 1919 to date Instructor in Civ. Eng., Rice Inst., Houston, Tex.: June to Sept. 1920 Designer and Estimator, Southern Pacific Ry., Houston: June to Sept. 1922 and March to Oct. 1923 Designing Engr. with Robt. J. Cummins, Cons. Engr., Houston, industrial and office buildings. (Active practice 11.3 years: Sub-Prof. work 2.1: Prof. work 9.2: Res. Ch. 3.9: Design 1.5). Refers to B. A. Bowman, R. J. Cummins, E. A. Fretz, H. A. Gray, D. Sutton, J. K. Woolf.

ARNOLD, WAYNE LYNN—239 W. Washington Ave., Jackson, Mich.—(Age 38. Born Wacousta, Mich.)—April to June 1909 Chainman with J. G. Cavanaugh, on township resurvey of government survey: Dec. 1909 to June 1910 Rodman, June 1910 to April 1911 Instrumentman and Chf. Draftsman, April 1911 to July 1913 Asst. City Engr., (7) and July 1913 to June 1914 City Engr., City of Cadillac, Mich., on municipal improvements: Aug. to Dec. 1914 Asst. Engr., City of Woonsocket, R. I., sewer construction, general surveys, paving and street improvements: April 1915 to Jan. 1916 Draftsman, Mason Motor Co., Flint, Mich.: Jan. to May 1916 Draftsman, Weston-Mott Axle Co., Flint, tool and jig drafting: May 1916 to April 1917 Constr. Engr. on sewer construction (\$250 000), April 1917 to Aug. 1918 Asst. City Engr., on municipal improvements (\$300 000), and Aug. to Nov. 1918 Acting City Engr., Jackson, Mich.: Oct. 1918 to June 1920 Special Student, Univ. of Michigan, sanitary and hydraulic engineering, from 1919 to 1920 teaching Asst. in charge of Sanitary Experiment Station: July 1920 to March 1921 Asst. Engr. with Cooley, Riggs & Anderson, Appraisers, in charge of office work, Consumers Power Co. appraisal: March 1921 to March 1922 Prin. Asst. Engr., Washtenaw County Road Comm., on highway construction and design: March 1922 to date City Engr., Jackson, Mich., pavement construction (\$750 000), sewer construction (\$200 000), and miscellaneous municipal improvements (\$100 000). (Active practice 12 years: Res. Ch. 9.4: Design 4.7). Refers to J. H. Bateman, A. J. Decker, W. R. Drury, D. M. Hatch, W. C. Hoad, W. O. Houston, H. E. Riggs.

BAKER, ROLAND GAIL—1422 N. Central Ave., Phoenix, Ariz.—(Age 26. Born Phoenix, Ariz.) (B. S. in Civ. Eng., Univ. of Ariz., 1919; S. B., Mass. Inst. Tech., 1920.)—87 June to Oct. 1919 Draftsman, Pinal County Eng. Dept.: June to Sept. 1920 Draftsman, Santa Cruz County Eng. Dept.: Sept. 1920 to June 1921 Field Draftsman, Instrumentman and Topographer, T. C. & G. B. R. R.: June to Oct. 1921 Field Draftsman, Instrumentman and Topographer, on railroad location, Ahumada Lead Co., Mexico: Oct. 1921 to date Chf. of Party on irrigation survey work (nearly 4 months); Asst. to Asst. Chf. Engr. while preparing report on hydro-electric possibilities of Salt River (Central Arizona) (over 4 months); Designing Engr. for Salt River Valley Water Users' Association having charge of all designs for structures (1½ years); structures built or under way include power house (approx. cost \$90 000), Taintor gates on Roosevelt Dam (\$150 000), transformer house (\$35 000), Mormon Flat Dam (variable radius type; \$1 000 000), also many smaller structures, such as bridges, canal checks and gates. (Active practice 4.1 years: Sub-Prof. work 2.2: Prof. work 1.9: Design 1.9). Refers to J. G. Ballhache, C. C. Cragin, F. C. Kelton, W. W. Lane, F. J. O'Hara, G. E. P. Smith, C. M. Spofford.

BERGER, FRANK HENRY—6919 Nineteenth Ave., Brooklyn, N. Y.—(Age 44. Born Dresden, Germany.) (B. S., Cooper Union Night School, 1903; C. E., Cooper Union, 1911.)—April 1905 to March 1909 with Rapid Transit R. R. Comm., 1 year as Rodman and 3 years Asst. Engr., lines and grades, supervision of construction, preliminary surveys, estimates, etc.: April 1909 to Jan. 1914 with Board of Water Supply, New York City, as Inspector (1 year) and Asst. Engr. (3½ years), lines and grades, supervision of construction, partial and final estimates, in charge of section of Catskill Aqueduct during latter period: April 1914 to March 1917 Asst. Engr., New York Municipal Ry., supervision of construction of portion of Sea Beach Subway, and third-tracking Broadway and Myrtle Ave., Brooklyn Elevated Lines: March 1917 to Feb. 1921 Office Engr. with Guggenheim Bros., making estimates of cost, writing specifications, reviewing tenders, making recommendations for purchase of all classes of materials for a large

copper mining and reduction plant: May 1921 to Oct. 1922 Executive Engr., Murrie & Co., in charge of checking and tabulation of field survey on evaluation of transmission and distribution system of United Elec. Light & Power Co., New York City: Nov. 1922 to date Asst. Engr., New York State Bridge & Tunnel Comm. and New Jersey Interstate Bridge & Tunnel Comm., in charge of Dept. of Testing Materials and Special Studies. (Active practice 18.3 years: Sub-Prof. work 2: Prof. work 16.3: Res. Ch. 10.8). Refers to M. H. Freeman, J. W. Goodrich, E. G. Haines, C. M. Holland, R. Ridgway, J. F. Sanborn, F. A. Snyder.

BIERSCHENK, HARRY EUGENE—668 Eastern Parkway, Brooklyn, N. Y.—(Age 21. Born Brooklyn, N. Y.) (A. B., Civ. Eng. course, Columbia Univ., 1923.)—At present 89 student at Eng. Schools of Columbia Univ.: refers to A. H. Beyer, J. K. Finch, (1) W. J. Krefeld, E. B. Lovell, C. R. Wyckoff.

BISSET, ANDREW GUSTAVE—U. S. Veterans' Hospital, St. Cloud, Minn.—(Age 30. Born Washington, D. C.) (C. E., Lafayette Coll., 1915.)—June to Oct. 1914 Transltman, 90 Westinghouse, Church, Kerr Co., on construction of steel plant, Easton, Pa.: June 1915 to Oct. 1916 Rodman, Pennsylvania R. R.: Oct. 1916 to Dec. 1917 Timekeeper, George (7) A. Fuller Co., on building construction, Washington, D. C.: Feb. 1918 to date with U. S. Navy, until Aug. 1919 with Civ. Eng. Corps, Public Works Dept., Submarine Base, New London, Conn., on construction of barracks, piers, sea wall, fuel-oil storage, roads, pipe-lines, etc.; then Public Works Officer, at Naval Hospital, Ft. Lyon, Colo., on construction of hospital buildings, power plant, pipe-lines, roads, walks, etc.; from June 1922 to May 1923 with Civ. Engr. Corps, Bureau of Yards and Docks, Washington, D. C., on preliminary investigations and design of veterans' hospitals; since May 1923 Officer in charge of construction of U. S. Veterans' Hospital, St. Cloud, Minn., in charge of construction of twelve buildings, water and sewer systems, power plant, distributing systems for steam and electricity, roads, walks, railroad. (Active practice 8.7 years: Res. Ch. 3.5: Design 2.9). Refers to R. E. Bakkenhus, G. S. Burrell, L. E. Gregory, G. A. McKay, P. L. Reed, H. H. Rousseau.

BREST, ALEXANDER—Univ. of Florida, Gainesville, Fla.—(Age 29. Born East Boston, Mass.) (B. S., Mass. Inst. Tech., 1916.)—July 1916 to May 1917 Asst., Eng. Div., Massa- 91 chusetts State Dept. of Health, drafting and field inspection: Aug. 1917 to March 1918 Chf. San. Inspector, American Red Cross and U. S. Public Health Service, extra-canton- (10)ment sanitation inspection, and supervision of sewage-disposal plants and general sanitary engineering: April 1918 to Feb. 1919 2d Lieut., San. Corps, U. S. Army, and later 1st Lieut., Commanding Officer of labor company, Camp San. Engr., Camp Johnston, Fla., and Camp Wadsworth, S. C., general camp sanitation, supervision of sewage-disposal plants, water-purification plant and drainage: April 1919 to Sept. 1920 Asst. Engr., Florida State Board of Health, inspection and supervision of water-purification and sewage-disposal plants, design of sewage-disposal plants and a drainage project, general sanitary engineering: Oct. 1920 to date Asst. Prof. of Civ. Eng., Univ. of Florida, responsible charge of courses in hydraulics, municipal sanitation, water supply, and concrete design. (Active practice 7.1 years: Sub-Prof. work 0.3: Prof. work 6.3: Res. Ch. 3.5: Design 0.4). Refers to X. H. Goodnough, W. C. Hoad, P. L. Reed, C. A. Smith, C. M. Spofford, J. A. Vogleson.

BRIGGS, CHAUNCEY MILLAR—360 N. Michigan Ave., Chicago, Ill.—(Age 39. Born Chicago, Ill.) (C. E., Cornell Univ., 1917.)—July 1901 to Aug. 1907 (part of time, while 92 student at Englewood High School and Univ. of Chicago, total $3\frac{1}{4}$ years) with South Park Commrs., Chicago, Ill., laying conduit, making reinforced building blocks, Time- (8) keeper on dredge, repairing road machinery (rollers, etc.), drafting, Engr. and Pilot on park passenger launches: Sept. 1907 to May 1909 Cost Clerk on special apparatus, Estimating Dept., Western Elec. Co., Chicago, Ill.: May to Aug. 1909 Rodman, Elgin, Joliet & Eastern Ry. Co.: Aug. 1909 to April 1910 Rodman, New York Central R. R., on track elevation made layout under crossing, etc.: April 1910 to Sept. 1913 with Chicago & Western Indiana R. R., as Rodman, Levelman, Transltman, Instrumentman (Cement and Steel Tester and Inspector, in charge of laboratory), construction of bascule bridge, track elevation, South Chicago, and of clearing gravity yard, and track survey for electrification: Sept. 1913 to June 1917 Asst. on engineering work (while attending Cornell Univ.) to Prof. C. L. Crandall and Carl C. Crandall: 1916-1917 Editor in Chief of *Cornell Civil Engineer*: July 1917 to Jan. 1918 with Rochester (N. Y.) Ry. & Light Co., as Draftsman and Designer on hydro-electric station No. 5,

central steam station and on coal gas plant, in charge of construction and design of latter plant, United Gas & Improvement (4 000 000 cu. ft. daily capacity): March to Aug. 1918 and Dec. 1918 to July 1920 with Sinclair Refining Co., Chicago, first as Draftsman, Designer in charge of refinery layout, hydraulic work, steam stations, sanitary systems, pumping stations; after Dec. 1918 Chf. Designer, Houston Refinery, East Chicago Refinery, Albany, N. Y., Coffeyville, Kans., Kansas City, Tremley Point, N. J.: Aug. to Nov. 1918 Ensign, U. S. Navy, in charge of design of gas plant, and all low-pressure process for Navy nitrate plant to be built at Indian Head, Md.: July 1920 to July 1921 Sales Engr. and Office Mgr., Maher Eng. Co., Chicago, design of fire protection layouts: July 1921 to date Cons. Engr., power plants and pumping plants, hydraulic dredges, design and supervision: Nov. 1921 to Dec. 1922 also Asst. San. Engr., San. Dist. of Chicago, pumping station design and remodeling treatment plant layout, budget, and Asst. to Prin. Asst. Engr. (Active practice 15.3 years: Res. Ch. 9.3: Design 6). Refers to F. A. Barnes, J. R. Hall, E. E. Haskell, J. S. Hess, F. J. Howes, E. H. Lee, V. R. Walling.

BROADHURST, WILLIAM GEORGE—128 Summlt Ave., Hackensack, N. J.—(Age 42. Born Chicago, Ill.) (M. E., Stevens Inst. Tech., 1902.)—June 1902 to Feb. 1903 with Green 93 Eng. Co. of Chicago, as Field Erector of mechanical stokers in Struthers, Ohio, and Ridgeway, Pa.: March to Sept. 1903 Asst. in charge of store rooms, Factory Engr.'s (1) Dept., Western Elec. Co., New York City: Sept. 1903 to June 1904 Student, Coll. of Civ. Eng., Cornell Univ.: June to Oct. 1904 Asst. to Supt., Flaherty & Landé, Brooklyn, N. Y., on construction of lighthouse in Chesapeake Bay: Nov. 1904 to Aug. 1905 Supt. of factory, Atlantic Roofing Mfg. Co., Perth Amboy, N. J., made tarred roofings: Sept. 1905 to July 1908 Inspector, Foreman, Walking Boss and Asst. Supt., S. Pearson & Sons, Contrs. for Pennsylvania R. R. tunnels under East River: Aug. to Dec. 1908 with Stewart, Kerbaugh, Shanley Co., on Catskill Aqueduct at Stone Ridge, N. Y., in charge of survey party: Dec. 1908 to March 1909 Foreman, Chas. E. Fraser & Co., Niagara Falls, N. Y., on construction of rock tunnel and shaft: April 1909 to March 1912 Gen. Contr., at Hackensack, N. J., building roads, concrete sidewalks, sewers, bridges, largest single contract a concrete bridge over a railroad (about \$9 000): March 1912 to date organized and Pres. of F. R. Long-W. G. Broadhurst Co. (now Broadhurst Co.) at Hackensack, construction work; highway and railroad bridges, water front work, dredging, sewage-disposal works, pile-driving, foundations, etc., largest work being a highway bridge costing \$185 000; has designed docks and bulkheads, temporary structures, forms, plant layouts, etc.: Oct. 1918—June 1919 also Inspector of pyrotechnics, Investigator for Claims Board, U. S. Army, Ordnance Dept., Civilian Branch, New York City. (Active practice 21.1 years: Sub-Prof. work 6.4: Prof. work 14.7: Res. Ch. 16.6: Design 2). Refers to W. G. Clark, G. Ferguson, C. E. Fraser, R. Schweizer, Jr., E. W. Stevens, J. L. Vogel.

BULL, CHARLES MAYRANT REES—P. O. Box 1428, Birmingham, Ala.—(Age 25. Born Stateburg, S. C.)—June to Dec. 1917 Rodman and Instrumentman, Quartermaster Dept., 94 U. S. Govt., Camp Jackson, S. C., on surveys, location of roads and sewerage system: Feb. 1918 Rodman for Mr. Haskell, Columbia, S. C.: March to Sept. 1918 Instrument- (10) man, Quartermaster Dept., U. S. Govt., Camp Humphreys, Va., Surveys and Highway Dept.: Feb. to May 1920 Instrumentman with Palmer & McCellen, Engrs., Sumter, S. C.: May to Aug. 1920 Instrumentman with H. A. Boggs, Sumter, S. C., on surveys: Sept. to Dec. 1920 student, Georgia School of Technology: Feb. 1921 to date Engr. and Estimator, The Smith Co., Industrial Bldrs., Inc., Birmingham, Ala., in charge of Estimating Dept., design of form work, designed form and false work for 100-ft. concrete arch highway bridge, Alabama F. A. P. No. 115, gravel washing plant for same project, foundation for 80-ft. steel bridge for Marion County, Ala., and supervised construction of \$35 000 school building, Birmingham. (Active practice 4.4 years: Res. Ch. 1: Design 0.8). Refers to J. A. Lewis, A. R. Peyton, R. A. Smallman, J. P. Smith, R. L. Totten.

BURNSIDE, LEWIS EVERETT—City Engr., Sharon, Pa.—(Age 43. Born Braidwood, Ill.)—Feb. 1902 to May 1904 Rodman, Chainman, Levelman, Transitman and Dist. 95 Engr., Somerset (Pa.) Coal Co.: May 1904 to Dec. 1917 in private practice as Civ. and Min. Engr. and Contr. at Grove City, Pa.; City Engr., Grove City and Sandy Lake, Pa., (6) County Engr., Mercer County, Pa., and Engr. mining operations in Western Pennsylvania: Dec. 1917 to April 1919 with U. S. Army as 1st Lieut. in command of troops, 27th Engrs. (Mining), in France: May to Oct. 1919 with Frank P. Graham, C. E.: Oct. 1919 to Feb. 1920 Supt. of coal operations in Mercer County, Pa.: Feb. 1920 to

date City Engr. of Sharon, Pa.: April 1923 commissioned Major, Engr. Officers' Reserve Corps. (Active practice 21.4 years: Res. Ch. 19.7: Design 17.8). Refers to H. W. Claybaugh, J. K. Harris, F. R. S. Layne, W. S. McFetridge, H. T. Porter.

CAMLIN, HAROLD ANDREW—Box 145, Grant Park, Ill.—(Age 29. Born Rockford, Ill.)
—Over 3 years student, Mech. Eng. course, Univ. of Wisconsin: June to Nov. 1917
96 construction work on Camp Grant cantonment with Bates & Rogers of Chicago; Engr. assisting Supt. of Constr.: Dec. 1917 to March 1918 construction work in ship yards, (8) San Diego: April to Nov. 1918 with U. S. Army: Dec. 1918–March 1919 construction work, U. S. Ordnance Depot, New Cumberland, Pa., Bates & Rogers, Chicago, Contra., assisting Supt. of Constr. on engineering work: April 1919 to date with Illinois Highway Dept., until Dec. 1919 as Jun. Highway Engr., then Asst. Highway Engr.; and since April 1922 Supt. of Constr. in day labor department; as Asst. Engr. had charge of resident engineers on inspection of new construction, maintenance surveys, plans, etc., in own division; as Supt. of Constr. in complete charge of road construction, including paving, grading, bridges and quarrying materials. (Active practice 6.5 years: Res. Ch. 4: Design 2). Refers to W. J. Camlin, C. M. Hathaway, J. E. Huber, C. Older, B. H. Piepmeyer, F. T. Sheets.

CANDRICK, WORTHINGTON—220 Fourth St., Olyphant, Pa.—(Age 24. Born Olyphant, Pa.) (B. S. in C. E., Bucknell Univ., 1923.)—June to Oct. 1923 Highway Inspector for 97 Owen & Plummer, Inc., Johnstown, Pa., on concrete and brick road: Oct. to Nov. 1923 Instrumentman, Phoenix Utility Co., at Hawley, Pa., on hydro-electric investigation. (4) (Active practice 0.4 year: Sub-Prof. work 0.4). Refers to A. T. Cook, B. Ehle, R. H. Ford, J. R. McCormick, F. A. Renner.

CARTIER, HAROLD AUGUSTUS—Charlevoix, Mich.—(Age 23. Born Chatham, Ont., Canada.) (C. E., Princeton Univ., 1922.)—2 summers (6 months) in charge of Eng. 98 Dept., Charlevoix Abstract Eng. Co., field work with transit, Chf. of Party, building roads, some construction and some drafting: Oct. 1922 to date Statistician and Asst. (7) Office Mgr., Indian Refining Co. (Active practice 1.3 years). Refers to G. E. Beggs, F. H. Constant, R. Johnson, C. McMillan, A. Rheinstein.

CHU, YU CHIEN—541 West 124th St., New York City—(Age 25. Born Changsha, Hunan, 99 China.) (B. E., Ohio State Univ., 1923.)—Refers to F. H. Eno, C. T. Morris, F. B. (1) Nelson, J. R. Shank, R. C. Sloane.

COLE, ENSER WILLIAM—205 W. Kerr St., Salisbury, N. C.—(Age 38. Born Carnegie, Pa.) (Va. Mil. Inst., 1911.)—July 1911 to June 1913 Asst. Supt. with his father, 100 W. M. Cole, directed operations in mines, laid out main entries, etc.: Aug. 1913 to March 1914 Supt. of Constr. with G. R. Martin, Paving Contr., directed construction of (10) street paving: March 1914 to Feb. 1916 Asst. City Engr., Salisbury, N. C., made plans, surveys for street paving and sanitary sewers, also inspected construction: Feb. 1916 to March 1917 Engr. for Town of Lenoir, N. C., on construction, inspection, plans and surveys for \$90 000 street paving project: March 1917 to May 1920 County Engr., Watauga County, N. C., on survey, relocation and inspection of construction of roads, part of work being Federal Aid Project: May 1920 to Dec. 1921 Asst. City Engr., Salisbury, made plans, surveys and inspected construction of street paving (cost approx. \$500 000): Dec. 1921 to Nov. 1923 Engr., Town of Leaksville, designed, surveyed and supervised construction of water-works, sewer system and street paving: Nov. 1923 to date City Engr. of Salisbury. (Active practice 12.4 years: Sub-Prof. work 0.6: Prof. work 11.8: Res. Ch. 9.9: Design 0.2). Refers to J. C. Carpenter, R. P. Coble, W. S. Fallis, S. Quattlebaum, J. D. Waldrop.

CONKLIN, RUSSELL FOSTER—117 Washington St., Hempstead, N. Y.—(Age 36. Born Brooklyn, N. Y.)—March 1905 to April 1909 Chainman and Transitman (1½ years) 101 and Chf. of field party (2½ years), Title Guarantee & Trust Co., New York City, surveying: May to Dec. 1909 and July to Dec. 1912 with J. Wallace Higgins, C. E., New (1) York City, in responsible charge, as Prin. Asst., of developing suburban real estate, sidewalks, streets and sewers, mapping, calculations, office and field: Feb. 1910 to April 1912 with Walter A. Miles, C. E., Mt. Vernon, N. Y., in responsible charge, as Prin. Asst., in field and office, sending out surveying parties, realty development, surveys, calculations, construction, subdivision and mapping: June 1912 and June 1916 Instructor in Surveying, Stevens Inst. of Technology: March 1913 to March 1916 Prin. Asst., Metropollo Eng. Co., Jamaica, N. Y., field and office, general realty development,

Involving large amount of calculation of curvilinear property layouts: Sept. 1916 to Aug. 1917 with Geo. K. North, Port Richmond, N. Y., as Prin. Asst. in responsible charge of New York City real estate development in all branches; 3 months in complete charge (during Mr. North's absence): Sept. 1917 to Feb. 1919 2d Lieut., and Feb. to July 1919 1st Lieut., E. O. R. C., U. S. Army: July 1919 to date with William L. Savacool, C. E. and City Surveyor, Elmhurst, N. Y., in responsible charge of general city surveying and property development: at various times (total 6 months) with Charles Hopper, Jersey City, N. J., general surveying, in responsible charge (during absence of Mr. Hopper). (Active practice 17.5 years: Sub-Prof. work 3: Prof. work 14.5: Res. Ch. 14.5). Refers to H. K. Endemann, J. W. Higgins, N. Oppenheim, G. L. Robinson, A. U. Whitson.

CORNING, LEO HIRAM—1305 E. 124th Pl., Cleveland, Ohio—(Age 26. Born Cleveland, Ohio.) (B. S. in Civ. Eng., 1918, and C. E., 1922, Case School of Applied Sci.)—July to Oct. 1916 Instrumentman in charge of field party, and July to Oct. 1917 Draftsman and Inspector, on reconstruction of filtered water reservoir of division filtration plant, (9) Water Dept., Cleveland: May 1918 to Jan. 1919 with Coast Artillery Corps, U. S. Army, commissioned 2d Lieut., Sept. 1918 and then Instructor in orientation in Coast Artillery School, course covering surveying, mapping, mathematics, including trigonometry, railroad location, etc.: Jan. to June 1919 Designer, M. A. Hanna Co., Cleveland, structural and mechanical designing on blast furnaces, coke ovens and power plants: June 1919 to date Asst. Engr., Water Dept., Cleveland, until Dec. 1919 on preliminary studies of arrangement and design of Baldwin Filtration Plant, inspection and supervision of miscellaneous water-works construction; then Squad Boss on architectural studies for Baldwin Filtration Plant; special investigation and report on requirements and design of Water Dept., Store Yard and Shops; hydraulic computations and structural design of coagulation basins, gate houses, filter and administration buildings, chemical house and mixing chambers of Baldwin Filtration Plant; new inlet and outlet works of Fairmount Reservoir, including gate-houses, inlet conduits and suction tunnel; since Nov. 1923 Deputy Engr. of design on all civil engineering work, including filtration plants, reservoirs, tunnels, large mains for distribution system, etc. (Active practice 5.7 years: Sub-Prof. work 0.4: Prof. work 5.3: Res. Ch. 4.3: Design 4). Refers to J. W. Ellms, G. W. Hamlin, W. H. Knox, A. G. Levy, A. V. Ruggles, F. H. Stephenson.

DODS, JOHN HUNTINGTON—648 Cherry St., Winnetka, Ill.—(Age 43. Born West Chester, Pa.)—1898 to 1902 (4 years) Draftsman, Laclede Fire Brick Mfg. Co., on installations of gas benches, coke ovens and general furnace work; also acted as Erection Supt. on some work: 1902 to 1904 (2 years) Draftsman and Clerk, Fairview (8) Fluor Spar Co., during sinking of a shaft 250 ft. deep, erection of headhouse and concentrating plant: 1904 to 1906 (2 years) Draftsman, Edgar Zinc Co., Cherryvale (Kans.) Plant, on general plant maintenance, gas well testing, etc.: 1906 to 1908 (2 years) City Engr. of Cherryvale, put in several miles of brick paving, did some sewer work and established grades for sidewalks, prepared estimates, etc.: 1908 to 1911 (3 years) Special Student in Eng. School, Univ. of Kansas: 1911 to 1912 (6 months) Engr., Edgar Zinc Co., designed and built condenser house, calcimine storage and crusher house, straight line kiln for roasting zinc blend: 1912 to 1914 (2 years) Draftsman and Erection Supt., Kansas City Structural Steel Co., as Draftsman on steel office buildings, several large smelter plants and on bridges; also did surveying and acted as Erection Supt. on a number of steel structures: 1914 (3 months) Engr. with Black & Veatch, Cons. Engrs., made preliminary surveys of several Kansas towns for street paving, water supply and sewers: 1914 to 1916 (2 years) Res. Engr., Cudahy Refining Co., designed and built filter house, burner house, and pump houses, cooling towers and stills, etc.: 1917 to date (7 years) Asst. Chf. Engr. and Development Engr., Sinclair Refining Co., on all phases of refinery engineering, starting with topographical survey to completed refineries (total 11); also supervised design of eight large distributing stations and a number of filling stations. (Active practice 21.7 years: Res. Ch. 12.7: Design 11.5). Refers to E. T. Almy, Jr., C. C. Cooman, H. A. Fitch, H. H. Hadsall, J. S. Hess, C. L. Parmelee, F. N. Veatch.

DUNCAN, ARTHUR GIBSON—615½ E. Lomita Ave., Glendale, Cal.—(Age 26. Born Los Angeles, Cal.) (B. S. in Civ. Eng., Cal. Inst. Tech., 1923.)—April to July 1920 104 Chairman, Los Angeles County Road Dept.: Aug. 1920 to July 1921 Chairman and Instrumentman, and June to Sept. 1922 Chairman, Instrumentman and Computer, Union (11) Oil Co., surveying, drafting and earthwork computations: Sept. 1921 to June 1922

student, California Inst. of Technology: Sept. 1922 to date with C. L. Weeks, Quantity Surveyor, until June 1923 (three days each week, remainder at school) as Asst. Estimator on preparation of cost data, taking off quantities, Asst. on appraisal measurements; since then Estimator, Appraiser and Surveyor, building and engineering estimates, in charge of field party, building appraising. (Active practice 1.8 years: Res. Ch. 0.5). Refers to F. W. Karge, J. W. Mair, R. R. Martel, W. W. Michael, F. Thomas.

ERICSON, ERIC—4302 Wayne Ave., Kansas City, Mo.—(Age 42. Born Halsberg, Sweden.) (Struc. Engr., Orebro, Sweden, Tech. Coll., 1905.)—Dec. 1905 to Nov. 1907 Rodman, 105 Transitman and Draftsman, railroad location and construction, Carter Constr. Co., St. Louis: Nov. 1907 to June 1909 Transitman and Draftsman, railroad location and construction, Missouri River & Gulf R. R.: June to Nov. 1909 Draftsman and Designer, municipal work and concrete bridges, Kansas City, Mo.: Nov. 1909 to Dec. 1910 Detailer, Checker, Designer and Asst. Supt. on bridges and buildings, Midland Bridge Co.: March 1911 to May 1913 Detailer, Checker, Designer, and Inspector on reinforced concrete structures, Kansas City Terminal R. R. Co.: May 1913 to April 1914 Draftsman and Designer on municipal work, North Kansas City (Mo.) Development Co.: April 1914 to Dec. 1917 Jun. Engr., Interstate Commerce Comm., Bureau of Valuation, Western Dist., making physical valuation and report on United States railroads, in charge of sub-party: Dec. 1917 to Nov. 1919 1st Lieut., U. S. Army, in charge of Engrs. Depot, Camp Gordon, Ga.: Commanding Officer, 411th Engr. Depot Detachment; Liaison Engr. Officer, Columbus, Ohio, in charge of making war map of Camp Gordon: June 1920 to Dec. 1922 member of firm, Ericson & Young, Contrs., reinforced concrete bridges and buildings, Kansas City: Feb. 1923 to date Res. Engr., paving, road work and bridges, with E. C. L. Wagner, Cons. Engr. (Active practice 16.3 years: Sub-Prof. work 9.7: Prof. work 6.6: Res. Ch. 5.1: Design 3). Refers to C. E. Donnelly, E. Holbrook, P. McGeehan, A. W. Mosley, C. A. Smith, H. F. Taylor, E. C. L. Wagner, C. C. Witt.

FARROW, CHARLES MAYNARD—Box 160, Montgomery, Ala.—(Age 27. Born Sturdevant, Ala.) (B. S. in Civ. Eng., Ala. Pol. Inst., 1915.)—June 1915 to Sept. 1916 Asst. to 106 County Engr., Montgomery County, Ala., Draftsman, Instrumentman, Checker and Chf. of Party, estimating (cost and material), specification writing, county road maps, records, (10) and office work on design and construction of roads and bridges: Sept. 1916 to April 1917 County Engr., Limestone County, Ala., Principal in charge of department, organizing engineering office, systematizing records, forms, and accounts, directing drafting, planning and supervising construction and maintenance of gravel roads and concrete bridges: April 1917 to May 1918 Asst. County Engr., Montgomery County, Asst. in charge of making plans, writing specifications, and designing roads, concrete and steel bridges: May 1918 to Aug. 1919 with 22d Engrs. (Light Railway), A. E. F.; Master Engr., Instrumentman and Draftsman on narrow gauge railroad work, South St. Mihiel, France; Inspector, Chf. of office on records of supervision and repairs to highways, LeMans, Sarthe, France: Sept. 1919 to date Asst. County Engr., Montgomery County, 4 months in charge of road surveys, drafting and estimating; 4 years on assignments from County Engr., location, plans, supervision of construction of gravel roads, wooden, concrete and steel bridges, organizing systematic maintenance of 700 miles of roads, including districts and forces, supervision and direction of work, supervision and design of concrete bridges and gravel roads, in charge. (Active practice 7.3 years: Sub-Prof. work 3.4: Prof. work 3.9: Res. Ch. 3.6: Design 0.3). Refers to R. P. Boyd, J. B. Converse, N. H. Holmes, W. S. Keller, G. N. Mitcham.

FONT, MANUEL—P. O. Box 278, San Juan, Porto Rico—(Age 35. Born Humacao, Porto Rico.) (S. B., Mass. Inst. Tech., 1913.)—Sept. 1913 to Nov. 1915 Asst. San. Engr. with 107 F. W. Dalrymple, Chf. Engr., San Juan, Porto Rico, design, superintendence inspection of water-works, sewerage systems, buildings, chemical and bacteriological analysis of (1) water and sewage: Nov. 1915 to May 1923 U. S. Army Officer (7½ years), highest rank attained Major; Asst. Prof. of Civ. Eng., Coll. of Agriculture and Mechanical Arts, Mayaguez, Porto Rico: May 1923 to date Chf. Engr. in charge of public improvements, City of San Juan, Porto Rico, design, construction, superintendence of San Juan new water works (\$1 800 000), filtration plant (\$500 000) and sewer system (\$300 000): five school buildings (\$350 000) and a hospital (\$150 000). (Active practice 11.7 years: Prof. work 4.2: Res. Ch. 2.1: Design 2.7). Refers to J. A. Canals, M. V. Domenech, R. A. Gonzales, A. Luchetti Otero, A. Rodriguez, C. del Valle Zeno.

FRANCIS, FREDERICK ORTON—245 Lafayette Ave., Buffalo, N. Y.—(Age 26. Born Buffalo, N. Y.) (B. S. in C. E., Ohio Northern Univ., 1923.)—June 1923 to date Instrumentman, Thompson-Starrett Co., Buffalo Filtration Plant. (Active practice 0.5 year: Prof. work 0.5). Refers to J. L. Ames, G. C. Andrews, C. H. Field, T. Leach, (3) C. D. Parsons.

FROST, LLOYD GARNER—250½ Third St., Portland, Ore.—(Age 29. Born Redland, Ore.)—2 years student, Oregon Agricultural Coll.: Feb. 1912 to March 1913 Engineer, U. S. Eng. Dept., dredge *Clatsop*: March 1913 to Feb. 1914 Transitman, Levelman and Draftsman on construction of sewers, pavement, subdivision: Feb. 1915 to May 1916 (12) Transitman and Draftsman, Copper River & Northwestern Ry.: June 1916 to June 1917 Instrumentman on relocation and Res. Engr. on location and construction, Alaskan Eng. Comm.: June 1917 to May 1919 Hospital Sergt., U. S. Army, in charge of statistical office: July 1919 to Feb. 1920 Chf. of Party on triangulation, timber cruising and mapping, U. S. Forest Service: Feb. 1920 to Jan. 1921 Office Engr., Multnomah County, Ore.: Jan. 1921 to Feb. 1922 Instrumentman, O. W. R. & N. Ry.: March to Nov. 1922 Asst. Engr., Matanuska Dist., Alaskan Eng. Comm., mine surveying, railroad location, road location, construction, etc.: Aug. 1922 to Feb. 1923 Draftsman, City of Portland: Feb. 1923 to date Chf. Draftsman with Hedrick & Kremers, \$6 000 000 bridge work. (Active practice 8.2 years: Res. Ch. 3.8: Design 0.5). Refers to I. G. Hedrick, G. Kimbrell, O. Laurgaard, J. P. Newell, M. E. Reed.

FUDGE, RUSSELL GERARD—15 Simpson Rd., Ardmore, Pa.—(Age 23. Born Elmira, N. Y.) (C. E., Princeton Univ., 1923.)—March-Aug. 1920 and July and Aug. 1922 110 Draftsman, American Bridge Co., Elmira Heights, N. Y., detailing railroad bridges and steel mill buildings (6 months) and subway and office building construction (2 months): (4) Sept. 1923 to date with Bell Telephone Co. of Pennsylvania, 3 months as Student Engr., and since then Inspector of Central Office Bldg. construction, including excavation, demolition, brick masonry, reinforced concrete, heating, lighting, plumbing, etc. (Active practice 0.8 year: Sub-Prof. work 0.8). Refers to G. E. Beggs, E. E. Buchanan, F. H. Constant, R. T. Lewis, E. E. Thompson, Jr.

GARR, BANARSI LAL—Municipal Engr., Municipal Board, Cawnpore, India—(Age 34. Born Ludhiana, Punjab, India.) (B. Sc. in Eng., Univ. of Glasgow, 1912.)—Summer 111 1910 on construction of large storage reservoir on Burncrooks Burn for Clydebank and Dist. Water Trustees, with Warren & Stuarts, Civ. Engrs., Glasgow: April 1913—March (1) 1914 Engr., Imperial Works of New Capital Delhi, in charge of roads and buildings and prepared project of pipe irrigation for New Delhi: Aug. 1914 to March 1916 Engr., Public Works Dept. of Central Provinces, in charge of district roads, buildings, bridges, etc.: Aug. 1916 to Sept. 1917 Chf. Engr., Porbandar State, Bombay Presidency, in charge of state works, such as roads, palaces and other buildings, harbor, irrigation, water-works, workshop, etc.: Dec. 1918 to Jan. 1920 State Engr., Poonch State Kashmir, in charge of state works, such as hill roads, bridges, palaces and other buildings, etc.: Feb. 1920 to April 1923 private business: May 1923 to date Mun. Engr., Municipal Board, Cawnpore, in charge of works (sewerage, water-works, roads and buildings, and improvement of city, etc.). (Active practice 8.5 years: Prof. work 5.4: Res. Ch. 5.4). (Applies in accordance with Sec. 1, Art. 1, of the By-Laws.)

GHELARDI, ANTHONY FRANCIS—River Edge, N. J.—(Age 28. Born Brooklyn, N. Y.) (C. E., Pol. Inst. of Brooklyn, 1920.)—Oct. 1917 to May 1919 at 3d Officers' Training 112 Camp, Camp Upton, N. Y., and Saumur (France) Artillery School; after June 1918 2d Lieut., Field Artillery, Reconnaissance Officer, map work, battery location, firing (1) data: May to Sept. 1919 Levelman, New Jersey & New York Bridge and Tunnel Comm.: Sept. 1920 to June 1922 Instructor in Civ. Eng., Polytechnic Inst. of Brooklyn: July 1922 to date Archt. and Bldr. of one- and two-family dwellings. (Active practice 5.1 years: Sub-Prof. work 1.5: Prof. work 3.6: Res. Ch. 1.4: Design 0.5). Refers to R. M. Beck, H. R. Codwise, H. P. Hammond, C. W. Hudson, E. G. Squire.

GLASSER, LEO MAURICE—241 Linden Ave., Brooklyn, N. Y.—(Age 24. Born Vienna, Austria.) (B. S. in C. E., Cooper Inst., 1923.)—May to Nov. 1923 Elec. Draftsman and 113 Checker, New York Edison Co., studying and drawing up work orders completed in the field, and later checking these drawings: Nov. 1923 to date Jun. Asst. Engr., New York (1) Transit Comm., drawing and tracing plans covering subway construction, also Asst. in field as Levelman or Transitman. (Active practice 0.5 year: Sub-Prof. work 0.5). Refers to H. R. Codwise, F. E. Foss, H. M. Lewis, G. Morrison, J. P. J. Williams.

GORDON, SAUL CANTOR—167 First St., Troy, N. Y.—(Age 23. Born Troy, N. Y.)—

- Has completed 3 years of Civ. Eng. course, Rensselaer Polytechnic Inst.: June to July 114 1918 Chainman, and June to Sept. 1919 Rodman, Bureau of Eng., Troy, N. Y., surveying, mapping, plotting and checking of notes, estimates, plans and specifications, inspection of asphalt pavements, etc.: June 1922-Dec. 1923 Jun. Asst. Engr., New York State Highway Comm., on surveys, preparation of design, construction, improvements of state highways, all office and field work related thereto; Inspector of materials, Bureau of Tests, tests of engineering materials. (Active practice 2 years: Sub-Prof. work 0.6: Prof. work 1: Res. Ch. 0.8: Design 0.2). Refers to E. R. Cary, L. W. Clark, C. T. Fisher, W. P. Mason, P. Schultze, H. E. Smith.

HAGGARD, ASHLEY PEABODY—712 Palmetto Ave., Sanford, Fla.—(Age 31. Born Oak Park, Ill.)—Prior to 1910 Stake Artist and Chainman, Denver Irrigation & Constr.

- 115 Co. (6 months), and Chicago, Milwaukee & St. Paul Ry. (1½ years): 1910 to 1911 (1 year) Rodman and Leveler, Lake Shore & Michigan Southern Ry.: 1911 to 1915 (10) (4½ years) Contr., H. S. Haggard & Son, railway right-of-way fence for various railroads: 1915 to 1917 (1½ years) Chainman, Rodman, Draftsman and Chf. of Party, A. T. & S. F. Ry., on maintenance and construction: 1917 to 1919 (2½ years) with U. S. Army, first as Private in an engineering company and later Capt. of Engrs.; had charge of most of laying out and planning of Camp Funston, Kans., town planning, railroads, bridges, sewer and water-works, roads, levee and revetment construction, 1 year in France with 305th Engrs., 80th Div., a combat regiment during three major operations; after armistice with Asst. Chf. Engr., A. E. F., also, 1 month with Peace Comm. Engrs.: 1919 to 1921 (2 years) Office Engr., Idaho State Highway Dept.: 1921 to 1922 (1 year) Instrumentman with W. K. Tavel, Engr., on municipal improvements: 1922 to date (1½ years) Constr. Engr. with Fred T. Williams, Engr., on municipal improvements. (Active practice 16.4 years: Sub-Prof. work 5.1: Prof. work 11.3: Res. Ch. 11.3: Design 1.5). Refers to W. T. Ballard, C. R. Burky, H. W. Crawford, E. B. Darlington, W. S. Earle, R. A. Finney, F. Helm, L. R. Maddox, L. R. Tillotson.

HALE, JOHN FLOTRO—820 Harvard Blvd., Dayton, Ohio—(Age 29. Born Dayton, Ohio.)

- (B. C. E., Ohio State Univ., 1918.)—June to Sept. of years 1913 and 1914 Rodman, 116 and Sept. 1914 to Sept. 1916 Transilman on surveys, design and construction on street paving work, City Engr.'s office, Dayton, Ohio: June to Sept. 1917 Asst. Engr. in same (9) office, Res. Engr. on construction of Webster St. Bridge: May 1918 to July 1919 with U. S. Army Engrs., 11 months with A. E. F.: Aug. to Oct. 1919 Asst. Engr., City Engr.'s Office, Dayton, on surveys, design and construction on street paving work: Oct. 1919 to March 1921 Engr., The Smith-Foster Co., Dayton, Res. Engr. in charge of design and construction of sewers and street paving in Xenia, Ohio: March to July 1921 Res. Engr., City of Dayton, on construction of Miller's Ford Reservoir: July 1921 to Aug. 1923 Asst. Div. Engr., State Highway Dept., Columbus, Ohio, in charge of maintenance work in eight counties, Div. No. 8: Aug. to Oct. 1923 Engr., with J. I. Geiger, Contr., Dayton, supervising construction of street paving and sewer work: Oct. 1923 to date City Engr. of Dayton in charge of all engineering work and of engineering office. (Active practice 8 years: Res. Ch. 4.3: Design 1.5). Refers to J. E. Barlow, P. S. Bookwalter, W. F. Foster, C. T. Morris, G. F. Schlesinger, E. A. Smith, R. N. Wald.

HEALY, EDWARD JOHN—11 Warren St., Salem, Mass.—(Age 22. Born Salem, Mass.)

- (S. B., Mass. Inst. Tech., 1923.)—Aug. 1923 to date Asst. to Res. Engr. on installation 117 of new sewage-disposal system for Andover, Mass., inspecting construction, giving line and grade for pipe, assisting Chief. (Active practice 0.3 year). Refers to H. K. Barrows, H. L. Bowman, C. B. Breed, G. A. Sampson, C. M. Spofford.

HILL, ROY NATHAN—Bishop, Cal.—(Age 36. Born Caseville, Mich.) (B. S. and E. M.,

- 1910, Mich. Coll. of Mines.)—1908 to 1909 (1½ years) engineering and contracting on 118 dam construction: 1910 (nearly 4 months) Engr., Saline Valley aerial tramway construction: 1910 to 1911 (6 months) contracting, transmission tower line: 1911 to 1912 (13) (6 months) Mine Supt., copper mining, Baccus & Johnson Min. Co., Morococha, Peru: 1912 (6 months) Mine Foreman, copper mining, Morococha Min. Co.: 1912 to 1914 (1½ years) Constr. Foreman on hydro-electric construction, Cerro de Pasco Min. Co., Oroyo, Peru: 1914 to 1915 (1 year) Engr. on water-works and sewer construction, City of La Ceiba, Honduras: 1915 to 1917 (2 years) in private practice of mining engineering, Jarbridge, Nev.: 1917 to 1919 (2 years) engineering and contracting and land development: 1919 to date (4 years) Ranch Mgr. in charge of development of irriga-

tion projects of Hillside Water Co. and Cain Irrigation Co. of Bishop, Cal. (Active practice 13.8 years: Res. Ch. 10.3: Design 1.5). Refers to J. C. Clausen, A. J. Grier, W. L. Huber, W. H. Leffingwell, E. J. Waugh.

HOFFMAN, WILLIAM HENRY—Room 621, Y. M. C. A., Canton, Ohio—(Age 42. Born Mansfield, Ohio.) (B. S., Case School of Applied Sci., 1903.)—1903 to 1904 (1½ years) 119 Shop Foreman, Shop Inspector and Field Erector, Brown Hoisting Machinery Co., Cleveland, Ohio: 1904 to 1905 (1 year) Draftsman on coal- and ore-handling machinery and (9) gas producers, Wellman, Seaver, Morgan Eng. Co., Cleveland: 1905 and 1906 (2 years) Detail Draftsman and Checker on steel buildings and bridges, McClintic-Marshall Constr. Co., Pottstown and Carnegie, Pa.: 1907 to 1910 (3 years) Structural Checker and Squad Boss, Eng. Dept., Riter-Conley Mfg. Co., Pittsburgh, on steel buildings and railroad bridges: 1910 to 1917 with Pittsburgh Bridge & Iron Works Co., on steel buildings and bridges as Structural Steel Squad Boss and Designer (2 years), Drawing Room Engr. in charge of Drafting Dept. (3 years) and Supt. of Erection, in charge of all field work (2 years); 1918 to 1919 Capt., Corps of Engrs., U. S. Army, commanding Co. A, 525th Engrs. (1½ years), in France (over 1 year) on construction: 1920 to 1921 (1½ years) Structural Engr. in charge of Designing, Estimating and Drafting Depts., Case Crane & Eng. Co., Columbus, Ohio: 1922 to 1923 (1 year) Chf. Engr., structural steel and ornamental iron work, Hughes-Keenan Co., Mansfield, Ohio: at present Pres. and Treas., Structural Eng. Co., of Canton, Ohio. (Active practice 19 years: Res. Ch. 14: Design 6). Refers to W. Finnell, E. C. Garlow, W. L. Glazier, D. Gutman, J. E. Kemp, R. E. Rohn.

HOHLWEG, WILLIAM AUGUST—Box 505, Iowa Park, Tex.—(Age 21. Born Baltimore, Md.) (C. E., Cornell Univ., 1923.)—Sept. 1919 to Oct. 1920, June to Sept. 1921, and 120 July to Sept. 1922 Engr.'s Aid, Baltimore City Water Dept., making rough surveys of pipe-lines, location of services and valves and hydrants, in charge of field party: (15) Oct. 1923 to date Field Draftsman, Wichita County Water Improvement Dist. No. 1, on map drawing and layout of irrigation canals. (Active practice 1.3 years). Refers to F. A. Barnes, H. N. Ogden, J. E. Perry, F. S. Seery, V. B. Siems, L. C. Urquhart, P. A. Welty.

HOWARD, SAMUEL BENJAMIN—Lenoir, N. C.—(Age 32. Born Morganton, N. C.) (B. E., 1913, and C. E., 1923, N. C. State Coll. of A. and E.)—June to Aug. 121 1913 Draftsman in an architect's office, Raleigh, N. C.: Aug. 1913 to April 1914 Surveyor for R. I. Poole in charge of land surveying, property subdivision, and Instru- (10) mentman on highway work: April to Oct. 1914 Asst. County Engr., Orange County Road Comm., at Hillsboro, N. C.: Oct. 1914 to July 1915 general practice, surveys, streets, sewers, highways, etc., at Henderson, N. C.: July 1915 to Aug. 1917 County Highway Engr., under supervision of North Carolina State Highway Comm., at Morganton, N. C., on work in Burke and Caldwell Counties: Aug. 1917 to Oct. 1919 Res. Engr., State Highway Comm., in charge of work in Burke, Orange, Durham and other counties: Oct. 1919 to Sept. 1921 County Highway Engineer, Caldwell County Road Comm., Lenoir, N. C., in charge of roads and bridges: Sept. 1921 to Feb. 1922 County Highway Engr., Highway Comm. for Catawba County, in charge of location, design and construction of roads and bridges: March to Nov. 1922 contracting, bridge work for State Highway Comm.: Nov. 1922 to date Res. Engr. with Mees & Mees, Cons. Engrs., in charge of design and construction of sewers and water-works, construction of filtration plant, street paving and gravity water supply involving large dam: has been in charge of design on all work except in case of bridges when in employ of State Highway Comm. (Active practice 10.7 years: Res. Ch. 10.5: Design 0.2). Refers to C. C. Babb, W. H. Booker, W. S. Fallis, R. I. Poole, F. E. Schnepfe, R. E. Snowden, H. Tucker, J. D. Waldrop, O. Z. Wrenn.

KINDSVATER, EMIL FRED—1221 Tennessee St., Lawrence, Kans.—(Age 22. Born Russell, Kans.) (B. S. in Civ. Eng., Univ. of Kans., 1923.)—June to Sept. 1923 graduate 122 research fellowship at Iowa State Coll., one-half of time on highway bridge impact investigation with Eng. Experiment Station: Sept. 1923 to date Instructor in Civ. Eng., (14) Univ. of Kansas. (Active practice 0.5 year). Refers to T. R. Agg, E. Boyce, W. C. McNow, H. A. Rice, C. C. Wiley, C. C. Williams.

KOEHLER, WALTER HENRY—1424 Franklin Ave., New York, N. Y.—(Age 28. Born New York, N. Y.) (B. S. of Civ. Eng., Cooper Union, 1917.)—1912 and summers 1914-1916 123 Timekeeper, Checker and Foreman, Asphalt Constr. Co., New York City, on roads and

- pavements: 1917 to 1918 Private, 22d Engrs., N. G. N. Y.; Draftsman, West Virginia
- (1) Pulp & Paper Co., New York (4 months); Corporal, Army Transport Service, Constr. Div.; 2d Lieut., Field Artillery, Camp Taylor, Ky. (over 7 months); at present in Reserve Corps, 12th Army Corps: 1919 to date Draftsman and Office Engr., The Texas Co., Export Dept., New York City (nearly 3½ years); Constr. Engr. (Field), The Texas Co. (West Indies), Ltd., Havana, Cuba (8 months); The Texas Co. (Porto Rico), Inc., San Juan, Porto Rico (9 months), construction of piers, buildings, pipe-lines and railroad sidings with plans, designing and estimating and construction of same in field. (Active practice 7 years: Sub-Prof. work 5.6: Prof. work 1.4: Res. Ch. 1.4: Design 1.4). Refers to C. Conklin, F. E. Foss, C. T. Schwarze, J. B. Stobo, S. M. Tapman, L. H. Williamson.
- KOSTING, FREDERICK WILLIAM**—550 West 170th St., New York City—(Age 24. Born Edinburgh, Scotland.) (B. S., Cooper Union, 1920.)—May 1920 to April 1921 Detailer, 124 Corrugated Bar Co., Inc., detailing reinforced concrete structures and ordering material: June 1921 to March 1922 Map Draftsman, Philadelphia Co., making large scale map
- (1) of Greater Pittsburgh: March 1922 to date Sales Engr., Corrugated Bar Co., Inc. Detailer, then Designer, Estimator and at present Sales Engr. for New York office, closing contracts and Asst. to Mgr. (Active practice 3.5 years: Prof. work 3.5: Res. Ch. 2.6: Design 0.9). Refers to H. R. Codwise, B. H. Davis, F. E. Foss, G. Morrison, C. T. Schwarze.
- LEISTER, JOHN SWIVEL**—184 Park Ave., Rutherford, N. J.—(Age 29. Born Lincoln, Nebr.) (C. E., Lafayette Coll., 1915.)—June 1915 to Nov. 1917 Rodman, Transitman, 125 Draftsman and Chf. of Survey Party, Susquehanna, Bloomsburg & Berwick R. R. Co. (P. R. R. System), at Watontown, Pa., 2 years on maintenance of way, 6 months as
- (1) Chf. of Survey Party collecting data for Federal valuation: Dec. 1917 to July 1918 Chf. of Field Party, American International Shipbuilding Corporation, at Hog Island, Pa., laying out shipways, piers, all kinds of buildings, highways, water supply and sewerage systems and railroad yards: Aug. 1918 to March 1919 Seaman in U. S. Naval Reserve Force: April 1919 to May 1920 Designer and Supt. of Constr. for Bascom & Slegor, Cons. Engrs., at Allentown, Pa., on concrete highways and concrete highway bridges: June 1920 to Nov. 1922 Asst. Maintenance Engr. for D. G. Dery Corporation, Mfrs. of Silks, at Allentown, responsible (with Chf. Engr.) for maintenance of the buildings, heat, light and power systems and any additions or changes thereto; designed and erected additions to two factories (3 and 4 stories), also constructed ¾ mile of sewer (Company operated forty mills in the East): Dec. 1922 to Aug. 1923 Designer for Eugene S. Powers & Son, Inc., Cons. Archt. Engrs. of Philadelphia and Newark, N. J., designing reinforced concrete and structural steel for office buildings, schools, hospitals and manufacturing plants: Sept. 1923 to date Designer, Henry R. Kent & Co., Engrs. and Constructors, at Rutherford, N. J., designing reinforced concrete and structural steel for proposed structure (Cornell Union, \$1 000 000) for Cornell Univ. (Active practice 8.1 years: Sub-Prof. work 2: Prof. work 5.5: Res. Ch. 3.4: Design 2.1). Refers to H. F. Bucher, W. T. Lyle, J. M. Porter, A. H. Reeves, H. T. Spengler.
- MACKENZIE, DOUGLAS CARLYLE**—2434 Mohawk St., Pasadena, Cal.—(Age 25. Born Cleveland, Ohio.) (B. S., Cal. Inst. Tech., 1922.)—June 1922 to date Draftsman, City 126 Engr.'s office, Pasadena, Cal., designing reinforced concrete structures. (Active practice 1.2 years: Res. Ch. 0.3: Design 0.8). Refers to T. D. Allin, R. R. Martel, W. W. Michael,
- (11) S. B. Morris, F. Thomas.
- MACMILLAN, EDWARD ALLEN**—Princeton, N. J.—(Age 30. Born Perrineville, N. J.) (C. E., Princeton Univ., 1915.)—June 1915 to Sept. 1916 Surveyor and Draftsman with 127 W. B. Harris, C. E., Princeton, N. J.: Sept. 1916 to May 1917 and Sept. 1919 to Jan. 1921 Instructor in Civ. Eng., Princeton Univ.: May 1917 to July 1919 2d Lieut. and
- (1) Capt., 1st U. S. Engrs.: Jan. 1921 to date Supt. of Grounds and Bldgs., Princeton Univ.: Licensed Municipal Engr. for New Jersey. (Active practice 8.3 years: Res. Ch. 3.9: Design 1). Refers to G. E. Beggs, M. T. Bolmer, W. H. Gibson, P. K. Miller, G. L. Robinson.
- MEYER, EDWARD DYCKER**—100 Cedar Hill Ave., Nyack, N. Y.—(Age 29. Born Christiania, Norway.) (C. E., Tech. Coll. of Norway, 1918.)—Jan. 1920–June 1921 128 Asst. Engr., Vittingfas Power Plant, Civ. Engr., Vestfald Power Co., drawing, calculating and planning: July 1921 to Oct. 1922 Asst. Engr., Trondhjems Dist., Statsbauerne,
- (1) Norway, drawing, calculating and surveying: Oct. 1922 to Oct. 1923 Asst. Engr.,

Sorlandsbanen (Norwegian State Railroads), surveying, alignment, and railroad location. (Active practice 3.8 years: Sub-Prof. work 2.1: Prof. work 1.7). Refers to C. E. Beam, N. K. Fougner, L. R. Jorgensen, A. A. Johnson, S. Willmot.

MILLER, JOHN LLOYD—121 East 3d Ave., Roselle, N. J.—(Age 25. Born Manasquan, N. J.)—3 years student, Civ. Eng. course, Rutgers Coll.: March 1920 to Aug. 1922 with J. Wallace Higgins, New York City, as Rodman, up to Chf. of Field Party and Res. Engr.: Aug. 1922 to Aug. 1923 Vice-Pres. and Treas., T. Foster-Callahan, Inc., Contr. (1) Engrs., Elizabeth, N. J., acted as Supt. on construction of 8 miles of sewer: Oct. 1923 to date Chf. of field party and Res. Engr. for J. Wallace Higgins. (Active practice 3.7 years: Sub-Prof. work 1: Prof. work 1.7: Res. Ch. 2.3). Refers to J. W. Higgins, J. B. Holbrook, G. P. Janes, L. D. Rights, J. Verner.

MONIWA, CHUJIRO—46 Zoshigayamachi, Takatamachi, near Tokyo, Japan—(Age 43. Born Tokyo, Japan.) (Civ. Eng. Dept., Coll. of Tech., Tokyo Imperial Univ., 1904; D. E. 130 from Minister of Education, endorsed by same Univ., 1919).—July 1904 to March 1907 in charge (under auspices of Dr. Y. Nakajima, Prof. of Tokyo Imperial Univ.) of planning sewerage system for Tokyo Municipality, part of this completed: April 1907 to March 1917 City Engr. and later Chf. Engr. of Nagoya City, had charge of water and sewerage systems: April 1911 to March 1913 also taught San. Eng. in Nagoya High Technical Coll.: Sept. 1917 to date Cons. Engr. of City of Tsu on construction of sewerage system (four-fifths completed): Aug. 1918 to date also Engr., Dept. of Home Affairs, Japanese Imperial Govt., supervising on sanitary engineering: Sept. 1920 to date also Head Prof. of Civ. Eng. Dept., High Technical School, Nippon Univ., Tokyo: Inspected public works in various countries: since Nov. 1923 investigating water and sewerage systems of the United States. (Active practice 19 years: Prof. work 19: Res. Ch. 16: Design 7). Refers to M. Abe, A. Awoyama, T. Chiba, T. Ebashi, Y. Hattai, I. Hiroi, K. Ichinose, M. Kabashima, T. Kurashige, K. Morigaki, S. Mukasa, T. Sano, S. Sekiba, S. Tanabe.

MORRIS, ABRAHAM MURRAY—950 Aldus St., Bronx, New York City—(Age 23. Born New York City.) (C. E., Cornell Univ., 1922).—July 1922 to Sept. 1923 Draftsman, 131 American Bridge Co., Ambridge, Pa.: Sept. 1923 to date Draftsman, New York State Transit Comm., New York City. (Active practice 1.4 years: Prof. work 1.4). Refers (1) to F. A. Barnes, R. G. Manning, H. N. Ogden, J. E. Perry, E. W. Schoder, F. J. Seery.

MOSHER, DANIEL GODFREY—141 Sells Ave., Atlanta, Ga.—(Age 35. Born Boston, Mass.)—Sept. 1909 to March 1910 Chainman, Boston & Albany R. R.: March to May 1910 and Sept. 1910 to June 1912 Rodman, New York, New Haven & Hartford R. R., latter period instrumentman on survey and construction, inspection on instruction work, calculations and estimates in office, took course at Franklin Union (night classes) in structures and reinforced concrete: June 1912 to Nov. 1916 Rodman, Boston Transit Comm., inspection and line and grade work on subway construction, precise leveling, estimating; Instrumentman, Asst. and Inspector, office estimating and design, field work, inspecting and line and grade work on subway and tunnel construction, responsible charge and second in party: Nov. 1916 to Oct. 1918 Detaller, Concrete Steel Products Co., detailing and estimating reinforcing steel and allied products, drafting and designing; Asst. Chf. Engr. for latter part: Oct. 1918 to March 1919 Asst. Engr., Harry M. Hope Eng. Co., drafting and designing, power station work; Asst. Res. Engr. on construction survey for transmission line construction, hydraulic construction work: March 1919 to July 1922 Asst. Chf. Engr., Concrete Steel Co., Boston office, on estimates, plans and details of reinforcing steel, some design: July 1922 to date Chf. Draftsman and Designer, Southern G. F. Co., Atlanta, Ga., in charge of estimating, detailing and design of fireproofing material in buildings. (Active practice 13.9 years: Res. Ch. 7.1). Refers to R. Brunel, H. E. Cousins, G. D. Emerson, R. S. Fliske, H. A. Gray, N. W. Green, P. C. Nash, H. Nawn, B. A. Rich, E. H. Rockwell.

MUELLER, CHESTER—147 Pomona Ave., Newark, N. J.—(Age 21. Born Irvington, N. J.)—at present in senior year of evening course in civil engineering at Cooper 133 Union: Sept. 1921 to date Transitman, Bureau of Docks, Newark, N. J., instrument work in connection with Port Newark Development Project, past 6 months Chf. of Party (1) on surveys in and around Port Newark. (Active practice 2.3 years: Sub-Prof. work 2.3). Refers to H. R. Codwise, F. E. Foss, G. Morrison, E. S. Rankin, J. P. J. Williams.

- NEWLIN, JOHN A. Forest Products Laboratory, Madison, Wis.—(Age 52. Born near Indianapolis, Ind.) (B. S. in C. E., Purdue Univ., 1900.)—June 1900 to April 1902 Transitman, Chicago, Indianapolis & Louisville Ry. Co., Chicago, maintenance of way, quarry track location and inspection of bridge work; April 1902 to Jan. 1904 First (7) Asst. on Corps, Pittsburgh, Cincinnati, Chicago & St. Louis Ry. Co., Louisville (Ky.) Div., on maintenance of way: Dec. 1904 to date with U. S. Forest Service at Purdue Univ., Lafayette, Ind., and at Univ. of Wisconsin, Madison, Wis., on work in connection with strength of timber; past 14 years has had charge of Section of Timber Mechanics, which deals with strength of the various species, all factors that influence the strength of timber and with the design of structures or articles made of wood where strength is of importance. (Active practice 22.6 years: Sub-Prof. work 3.6: Prof. work 19: Res. Ch. 14). Refers to McG. Cline, W. K. Hatt, W. E. Hawley, C. J. Hogue, D. F. Holtman, R. P. Miller, W. D. Pence, A. N. Talbot, C. R. Thomas, F. E. Turneure, L. F. Van Hagan, T. R. C. Wilson, C. P. Winslow, J. R. Worcester.
- OBLAN, JACOB CALEB—133 West 113th St., New York City—(Age 29. Born Poltava, Russia.)—1917 to 1918 (10½ months) Surveyor's Asst. Draftsman and Tracer with 135 Mr. Epstein, C. E. and Surveyor, New York, assisting in field work and plotting from notes in office: 1918 to 1919 (11½ months) Draftsman, Erie R. R. Co., New York City, also some estimates: 1919 (6 months) Draftsman with Watson G. Clark, New York City, map work, road work, borings, surveying, soundings: 1920 (7 months) Draftsman, New York & Queens Light & Power Co., Long Island City, N. Y., electrical sub-station layout and detail (structural, mechanical, architectural and electrical): 1922 to 1923 (over 1 year) Draftsman, New York Edison Co., New York, electrical sub-station layout: July 1923 to date Draftsman with D. B. Steinman, Cons. Engr., New York City, drafting, computations on bridges. (Active practice 4 years: Design 0.5). Refers to H. R. Codwise, H. P. Hammond, W. E. Joyce, H. D. Robinson, E. J. Squire, D. B. Steinman.
- REICHELDT, VICTOR HUGO—287 Wardwell Ave., West New Brighton, N. Y.—(Age 51. Born Apolda, Germany.) (B. S. and C. E., Cooper Union, 1899; Extension Course in 136 San. Eng., Columbia Univ., 1916.)—1895 to 1897 (1½ years) Surveyor's Asst. with Charles Busath and W. T. Vajen: Aug. 1897 to Jan. 1898 Surveyor's Asst., Dept. of (1) Street Improvement, 23d and 24th Wards, New York City, on topographical survey: Jan. 1898 to Feb. 1899 Surveyor's Asst., on topographical and triangulation survey, and Feb. 1899 to Jan. 1902 Topographical Draftsman, mapping and designing street layouts and sewerage systems, Board of Public Improvements, New York City: Jan. to Aug. 1902 Topographical Draftsman, Office of Pres., Borough of the Bronx, mapping and designing street layouts, part of time in charge of field party: Aug. 1902 to date in Office of President, Borough of Richmond, as follows: Aug. 1902 to June 1903 Topographical Draftsman, design and preparation of drainage plans and sewerage systems; June 1903 to Oct. 1905 Transitman and Computer, in charge of field party on topographical survey and on surveys for sewer and road construction, part of time in direct charge of road and sewer construction; Oct. 1905 to July 1908 Asst. Engr., direct supervision over sewer and road construction, part of time in charge of design of drainage and sewer construction plans; since July 1908 Asst. Engr. in charge of Sewer Design and Sub-structure Div. and general supervision of sewer construction work; responsible to Cons. Engr. for design of all drainage and sewerage systems in the Borough; design of sewage-treatment and pumping plants, culverts and highway bridges; preparation of contracts for sewer construction; examination of plans for reinforced concrete factory and warehouse buildings; Member of Advisory Committee to Cons. Engrs. of Board of Estimate and Apportionment of New York City on sewer capacity and formulation of standards for sewer design and sewage disposal. (Active practice 27.9 years: Res. Ch. 20.2: Design 3.1). Refers to K. Allen, O. L. Brodie, T. S. Oxholm, A. W. Tidd, L. L. Tribus, A. S. Tuttle, R. W. Wood.
- ROSE, FRANKLIN ORTH—Care, Stone & Webster, Inc., 147 Milk St., Boston, Mass.—(Age 33. Born Dallas, Tex.) (B. A. in Civ. Eng., Stanford Univ., 1917.)—June to Aug. 137 1916 Chainman, and June to Aug. 1917 Rodman, Great Northern Ry.: Sept. 1917 to July 1919 1st Lieut., Engrs., U. S. Army, instructing Engr. Replacement Troops and (2) staff work: July to Sept. 1919 Levelman, New York State Bridge and Tunnel Comm.; Jan. to March 1920 Structural Draftsman, Foundation Co., on additions to plant of Standard Oil Co. of California at El Segundo, Cal.: June to Sept. 1920 Engr., Div. of Highways, Massachusetts Dept. of Public Works, bituminous macadam resurfacing at Wilmington, Mass.: Sept. 1920 to Jan. 1921 Structural Draftsman, Stone & Webster, Inc., in Concrete Squad: April to July 1921 Computer, Div. of Highways, Massachusetts

Dept. of Public Works: Aug. to Dec. 1921 Structural Draftsman, Southern California Edison Co.: Jan. to Sept. 1922 Designing Engr. and Supt. of Constr., associated with architect on 5-story (3 constructed) steel frame and brick office building: Jan. to Oct. 1923 Concrete Designer, and Nov. 1923 to date Executive Asst. to Engr. in charge of all engineering activities, Stone & Webster, Inc. (Active practice 5.1 years: Sub-Prof. work 2.3: Prof. work 2.8: Res. Ch. 2.7: Design 1.5). Refers to J. C. L. Fish, S. C. Godfrey, W. B. McMillan, J. H. Manning, C. D. Marx, A. V. Swift, C. B. Wing.

SAURBREY, KAY NIELS GODOFRED—Linville Falls, N. C.—(Age 51. Born Nastved, Denmark.)—Oct. 1892 became 2d Lieut., Cavalry School, Randers, Denmark: 1894 to 1938 1898 (4 years) Instrumentman and Draftsman on railroad construction in South America: 1898 to 1908 Instrumentman and Draftsman for various firms and engineers (10) in United States, including 3 years with U. S. Engrs. on construction of sea coast fortifications at Pensacola Harbor, and 3 years in Cuba as Chf. of Party, Designer (1 year), Supt., Govt. repair shop; Gen. Inspector, construction of parks, and 1 year Engr. for Quartermaster, U. S. Army, at Cienfuegos; 1 year in Computing Dept., Mississippi River Comm.: 1908 to 1910 (2 years) Chf. of Party and Inspector of construction, Sewer Dept., Washington, D. C.: 1910 to 1911 (1 year) Asst. Supt. on roadwork in Maryland: 1912 and 1913 Asst. Engr., City Engr.'s office, Altoona, Pa., on streets, sewers, and water-works: 1914 to 1916 (2 years) Draftsman and Surveyor, County Surveyors office, Dayton, Ohio, on roads and maps: March to June 1917 Inspector of construction for Jennings & Lawrence, Columbus, Ohio: July to Sept. 1917 Chf. of Party, Constr. Div., Camp Sherman, Ohio: Oct. to Dec. 1917 Asst. Engr., Camp Joseph E. Johnson, Jacksonville, Fla., on railroad construction, drainage, concrete roads: May to Oct. 1918 Engr. in charge of construction of Warehouses Nos. 1-3, Army Supply Base, Norfolk, Va.: Nov. 1918 to April 1919 Asst. Engr., Constr. Div., Camp Lee, Va., construction of sewage disposal and concrete roads: May to Nov. 1919 Designer, City Planning Comm., Norfolk: Oct. 1919 commissioned Capt., Engr. Sec., Officers' Reserve Corps, U. S. Army: Dec. 1919 to Sept. 1920 in private practice at Wilson, N. C., surveying, maps, sewers, etc.: Oct. 1920 to Sept. 1921 Asst. Engr. on sewer construction for City of Wilson: Oct. 1921 to date Res. Engr., North Carolina State Highway Comm. (Active practice 25.3 years: Sub-Prof. work 9: Prof. work 16.3: Res. Ch. 11.3: Design 5). Refers to C. N. Conner, C. Jacoby, H. V. Joslin, H. M. Lilly, E. R. Olbrich, C. M. Upham.

SCHIRMER, HOWARD AUGUST—1444 Fourteenth St. Oakland, Cal.—(Age 22. Born Oakland, Cal.) (B. S., Coll. of Civ. Eng., Univ. of Cal., 1923.)—June to Aug. 1921 Ditch Inspector, and June to Aug. 1922 Tunnel Inspector and cost data collection and record keeping for concrete tunnel lining, Pit No. 1 Power Project, Pacific Gas & Elec. Co.: (13) May to Aug. 1923 Field Engr., Oakland Traction Co. (S. F. Oakland Terminal Ry.), in charge of field party, Instrumentman: Aug. 1923 to date Structural Draftsman, Alameda County Surveyor's Office, design work on proposed estuary subway project. (Active practice 0.7 year: Sub-Prof. work 0.4: Prof. work 0.3: Design 0.3). Refers to R. E. Davis, C. Derleth, Jr., A. W. Earl, F. S. Foote, G. A. Posey, H. E. Squire.

SCHRACK, HARRY CASPER, Jr.—Venango and G Sts., Philadelphia, Pa.—(Age 23. Born Philadelphia, Pa.)—1921 graduated from Drexel Inst., Evening School: 1919 to 1920 140 (1 year) Engr., Concrete Steel Co., Philadelphia, detailing reinforcement for concrete structures: 1921 to date (2 years) Engr., Pennsylvania Steel Export Co., Philadelphia, estimating and designing, charge of detailing of reinforcement for concrete structures. (Active practice 3 years: Sub-Prof. work 1: Prof. work 2: Res. Ch. 2: Design 2). Refers to I. Demarest, J. E. Gill, G. N. Hyland, W. R. Sauter, C. M. Stewart.

SCULLEN, ANTHONY JAMES—1224 Lawrence St., N. E., Washington, D. C.—(Age 34. Born Little Falls, N. Y.) (C. E., Rens. Pol. Inst., 1911.)—June to Sept. 1908 Chairman, 141 and June to Sept. of years 1909 and 1910 Inspector on pavement and curb and sewer construction, City of Little Falls, N. Y.: June to Nov. 1911 Asst. Engr., Little Falls & (5) Johnstown R. R., in charge of field party and office during preliminary surveys: Nov. 1911 to Oct. 1912 Asst. Engr., City of Little Falls, in charge of field parties on city work also on water-shed surveys: Oct. 1912 to Oct. 1913 Instructor in charge Dept. of Drawing, Oct. 1913 to March 1919 Instructor, and March 1919 to date Associate Prof., in charge Dept. of Civ. Eng., Catholic Univ. of America: Jan. 1918 to June 1920 (part of time) Structural Designer, U. S. Army Ordnance Dept., on design of mill buildings and power houses for nitrate plants at Muscle Shoals, Ala. (Active practice 12.6 years: Prof. work 12.6: Res. Ch. 11.2: Design 1.2). Refers to E. R. Cary, O. J. Dempster, C. B. Hunt, T. R. Lawson, G. I. Oakley.

SHIH, KALGAN—Care, P. L. Tsang, P. O. Box 91, Schenectady, N. Y.—(Age 28. Born Shanghai, China.) (B. S. in Civ. Eng., Tongshan Eng. Coll., China, 1918; M. S., Mass. 142 Inst. Tech., 1922.)—Aug. 1918 to June 1919 Instructor in mathematics and drawing, Tongshan Eng. Coll.; July 1919 to June 1920 with Andersen, Meyer & Co., Shanghai, China, as Designer, Bldg. Dept. (3 months), and Squad Head in structural work, Power Plant Dept.; July 1920 to Jan. 1921 Supt. of Constr., Wah-Foong Cotton Mill, Wusung, China; April to June 1921 Draftsman in office, C. I. Goldberg, Archt., Bayonne, N. J.; July 1921 to June 1922 post-graduate student in civil engineering, Massachusetts Inst. of Technology; July to Oct. 1922 Designing Draftsman, Nashville (Tenn.) Bridge Co.; Nov. 1922 to Jan. 1923 Arch. Engr., Bureau of Architecture, Board of Education, Chicago, Ill.; Feb. to May 1923 Designer and Squad Head, Kalman Steel Co., Chicago; June 1923 to date Designer, New York Edison Co., New York City. (Active practice 5.1 years: Sub-Prof. work 0.2; Prof. work 3.2; Res. Ch. 1.3; Design 2.2). Refers to H. K. Barrows, C. B. Grady, G. A. Orrok, C. M. Spofford, E. M. Van Norden.

SILVERA, NOEL GEORGE—Spanish Town, Jamaica—(Age 37. Born Kingston, Jamaica.)—1904 to 1906 Volunteer in Drawing Office, Public Works Dept., tracing, leveling, drawing, etc., adjusting surveying instruments, etc.; 1906 to 1907 Draftsman, Gauge Drafting Branch, Inspection Dept., Western Elec. Co., New York City; 1907 (4 months) (1) Draftsman in drawing office, New York Edison Co., New York City; 1908 associated with P. L. Abraham on rebuilding in Kingston, Jamaica, after the earthquake; a short time also with G. S. Asboln, Contr.: 1908 to 1909 (1 year) Asst. Draftsman in Drawing Office, Public Works Dept., drawing and designing buildings and bridges, survey and leveling; 1909 to 1916 (7 years) with his father, V. E. Silvera, assisting in management of his business and properties; 1916 to 1920 (3½ years) Supt. of Parochial Roads and Works for Parish of St. Mary, responsible for maintenance of over 340 miles of parochial roads, also markets and other buildings, bridges, etc.; April 1920–April 1923 with Public Works Dept. as Supt. of Public Works for Parish of St. Thomas in charge of over 200 miles of main roads and for construction and in some cases design of all roads, bridges and buildings and for maintenance of all public buildings in this area and for some surveys and levels; May 1923 to date Supt., Parochial Roads and Works, St. Catherine. (Active practice 15.5 years: Res. Ch. 7.2). Refers to P. L. Abraham, J. H. L. Dodd, J. M. Fletcher, S. C. Henriques, H. A. Melville.

SMITH, GEORGE WASHINGTON—26 Benton St., Trenton, N. J.—(Age 24. Born East Portchester, N. Y.) (Sc. B., Brown Univ., 1923.)—July 1923 to date Structural Drafts- 144 man, Trenton Plant, American Bridge Co. (Active practice 0.5 year: Sub-Prof. (4) work 0.5). Refers to C. E. Beam, J. E. Hill, I. W. Patterson, J. Wilmot, S. Wilmot.

SMITH, WILLIAM DURKEE—250½ Third St., Portland, Ore.—(Age 36. Born Grand Rapids, Mich.) (B. S. in C. E., Coll. of Eng., Univ. of Wash., 1912.)—Oct. 1912 to Sept. 145 1913 Draftsman and Checker, Stone & Webster Eng. Corporation, at White Salmon, Wash., on design of dam, flow-line, surge tank and tailrace of White Salmon River (12) development; design and detail of structural steel for power houses and substations, Big Creek Development at Fresno, Cal.; Oct. 1913 to May 1914 Asst. Engr. with A. O. Powell in charge of structural and refrigeration design of Bell St. warm and cold storage warehouse for Port of Seattle, responsible for structural design and detail; June 1914 to June 1915 Structural Draftsman for Port of Seattle designing and detailing on fruit storage warehouse and refrigeration plant; July to Dec. 1915 Bridge Drafts- man, Chicago, Milwaukee & St. Paul Ry., at Seattle, designing reinforced concrete rail- road structures; Dec. 1915 to July 1918 Bridge Draftsman, S. P. & S. Ry., at Portland, Ore., until June 1917, then Asst. Bridge Engr., design and detail of all bridge work and as Asst. Bridge Engr. in charge of construction coming under the Bridge Dept.; July 1918 to Feb. 1919 Draftsman, Columbia River Shipbuilding Corporation, at Port- land, made plans for extension of plant, including four shipways, boiler shop, plate shop and other smaller buildings; Feb. 1919 to April 1923 Chf. Draftsman for Port of Tacoma, Wash., in full charge of design and detail of all development, two piers and hydraulic fill (about \$1 500 000); July 1923 to date Prin. Asst. Engr. with Hedrick & Kremers, Cons. Engrs., Portland, in charge of all design and detail on Ross Island and Burnside bridges at Portland (about \$4 500 000). (Active practice 10.9 years: Res. Ch. 6.4; Design 9.8). Refers to F. H. Fowler, A. H. Fuller, J. M. Gilman, I. G. Hedrick, G. F. Nicholson, M. E. Reed.

SMITH, WINFIELD SCOTT, Jr.—154 Croton Ave., Ossining, N. Y.—(Age 29. Born Ossining, N. Y.)—March 1912 to May 1915 Asst. Engr. on road building, sewer con- 146 struction, land developing and title surveys, Briarcliff Realty Co.; May 1915 to Dec.

- 1918 Chf. of Party, surveys, bridge and road construction, Wulff Eng. Co.: Dec. 1919 to June 1920 in private practice, surveys and architectural work: June 1920 to April 1921 Rodman, New York Central R. R. Co.: April 1921 to date Engr., Carroll Contr. Co., estimating, general supervision of construction. (Active practice 11.6 years: Sub-Prof. work 3.9: Prof. work 7.7: Res. Ch. 7.7). Refers to J. E. Beswick, C. MacDonald, C. H. Sells, C. L. Spaulding, E. J. Wulff.

SPIES, HERBERT AUGUST—704 Healey Bldg., Atlanta, Ga.—(Age 31. Born St. Louis, Mo.)—May to Dec. 1909 Structural Steel Draftsman, American Bridge Co., St. Louis,

147 Mo.: Dec. 1909 to May 1910 Structural Steel Draftsman, Union Iron & Foundry Co., St. Louis: May to July 1910 Structural Draftsman, steel and reinforced concrete, with

- (10) G. S. Bergendahl, Cons. Engr., St. Louis: Aug. 1910 to Feb. 1913 Structural Draftsman on reinforced concrete, Truscon Steel Co., St. Louis: Feb. 1913 to Oct. 1918 Structural Draftsman and Asst. Engr., Corrugated Bar Co., until Jan. 1915 as Structural Draftsman in Buffalo (N. Y.) Office, Jan. to Aug. 1915 transferred to office of Ford, Bacon & Davis, New Orleans, as Structural Draftsman and Asst. Engr. in design of New Orleans Cotton Warehouse; Aug. 1915 to May 1918 Asst. Engr. in Buffalo office in design and estimating of reinforced concrete; after May 1918 Dist. Engr. in charge of Atlanta Office: Oct.—Dec. 1918 Designing Engr. with Ford, Bacon & Davis, New Orleans, Supervising Engr., U. S. Army Supply Base, New Orleans: Jan. 1919—Dec. 1921 Dist. Engr. in charge of Atlanta office of Corrugated Bar Co.: Jan. 1922 to date Chf. Engr., G. Lloyd Preacher & Co., Inc., Archts. and Engrs., in charge of all engineering and field supervising, involving hotels, apartments, schools, office buildings and warehouses (aggregate approx. \$6 200 000): registered to practice engineering in States of Florida and North Carolina. (Active practice 14.5 years: Res. Ch. 7.7: Design 8.5). Refers to R. S. Fiske, A. V. Gude, A. P. Skaer, W. C. Spiker, W. S. Thomson, F. J. Trelease.

SPURLING, OLIVER CROMWELL—Care, Western Elec. Co., Inc., 195 Broadway, New York City—(Age 49. Born St. George, Bermuda.)—Oct. 1901 to Jan. 1923 with Western

148 Elec. Co., Chicago, Ill., as follows: Oct. 1901 to Dec. 1908 Asst. Plant Engr., in responsible charge of design and construction, for 4¼ years of steam electric power plant

- (1) and distribution equipment in connection with conversion of two factories, one at North Woolwich, London, England, from mechanical power transmission with gas lighting to steam electric power and lighting (power station capacity 850 kw.), and one at Antwerp, Belgium, from mechanical power transmission to steam electric (power station capacity 700 kw.), and (responsible charge of construction only) new factory buildings at North Woolwich, England, and for 3½ years of steam electric power plant equipment and mechanical and electrical transmission, Hawthorne Works (station capacity increased from 800 kw. to 3 000 kw.); Jan. 1909 to Dec. 1914 Plant Engr., Principal in responsible charge of design and construction of buildings, building equipment and steam electric power plant equipment and mechanical and electrical transmission, Hawthorne Works (power station capacity increased from 3 000 kw. to 7 750 kw.), and Jan. 1915 to Jan. 1923 Asst. Gen. Supt. on same work and in charge of operation of power station, gas plant, fire and watch service and similar services (power station capacity increased from 7 750 kw. to 14 250 kw.): Feb. 1923 to date Engr. of Plant, Western Elec. Co., New York City, Principal in responsible charge of design and construction of buildings, building equipment and steam electric power plant equipment and mechanical and electrical transmission of power for all of Company's properties in United States; steam electric power station of 8 000 kw. has been designed and at present being built. (Active practice 21.8 years: Prof. work 21.8: Res. Ch. 21.8: Design 17). Refers to W. E. Angier, F. D. Chase, F. E. Davidson, R. L. Hart, C. W. Haupt, O. W. Melin, R. Modjeski, R. A. Widdicombe.

STARK, JOHN JACOB—1215 Mulberry St., Des Moines, Iowa—(Age 33. Born Des Moines, Iowa.)—1908 to 1910 (2 years) in various capacities in shops and power plant of

149 Des Moines City Ry. Co.: 1910 to 1911 (1 year) Rodman, Pacific Power & Light Co.: 1911 to 1912 (1 year) Transitman on surveying and subdivision work for Geo. M.

- (7) Dodge, San Rafael, Cal.: 1912 to 1913 Instructor in machine shops of Highland Park Coll., Des Moines: 1913 to 1917 (4 years) Foreman, Gen. Foreman, Supt. on steel and concrete bridge construction for N. M. Stark & Co., Des Moines, had charge of work from culverts, small arches to bridge consisting of nine 75-ft. arches: 1917 to 1923 (6 years) in private practice on contract work for counties, and state on bridge and roadwork and concrete construction. (Active practice 15 years: Sub-Prof. work 5: Prof. work 10: Res. Ch. 10). Refers to N. D. Dean, W. D. Dean, A. LeVan, J. B. Marsh, J. E. Van Liew.

TAYLOR, BILL NORTHUTT—Apartado 34, Maracalbo, Venezuela.—(Age 25. Born Longview, Tex.) (B. S., Tex. Agr. and Mech. Coll., 1919.)—July 1919 to July 1920 150 Jun. Engr., or student in Doherty Training Schools of Petroleum Engrs., with Empire Gas & Fuel Co. of Bartlesville, Okla.: July 1920 to April 1921 Constr. Supt., Tide-
(1) water Oil Co., Tampico, Mexico, on supervision of construction of terminal (dock and dredging work) and Asst. on narrow-gauge railroad: Aug. 1921 to date Draftsman, Office Engr., Venezuelan Sun, Ltd., Maracalbo, Venezuela, Branch of Sun Oil Co., Philadelphia, supervision of design of structures, mapping of concessions, and Asst. to Chf. Engr. (Active practice 4.1 years: Sub-Prof. work 2: Prof. work 2.1: Res. Ch. 1.9: Design 0.2). Refers to R. B. Carruthers, A. C. Love, J. C. Nagle, F. C. Packard, J. J. Richey, H. N. Roberts, J. F. Witt.

THOMSON, HAROLD ARTHUR—State Highway Dept., Harrisburg, Pa.—(Age 33. Born Phoenixville, Pa.)—May 1909 to Aug. 1911 student, C. E. course, Univ. of Pennsylvania; 151 2 summers (4 months each) on Survey Corps of John Deger, Norristown, Pa., miscellaneous work: Aug. 1911 to date (except Aug. 1917 to April 1919 with U. S. Army, (4) Constr. Div., Q. M. C., Private to 1st Lieut., charge of roads and special building construction, Camp Hancock, Ga., Asst. Utilities Officer, Camp Gordon, Ga.) with Pennsylvania State Highway Dept., until April 1916 in Dist. No. 7, Philadelphia, Pa., as Rodman, Chainman, Instrumentman, Timekeeper and Foreman on construction, Co. Supt. of maintenance, Draftsman and in charge of office; April 1916 to Aug. 1917 Asst. Engr., Township Highways, Dist. No. 1, in charge construction and maintenance of township roads and bridges in eleven counties; since April 1919 Asst. to Township Commr., general supervision township road and bridge construction and maintenance in Pennsylvania (1516 townships, expenditure from \$15 000 000 to \$23 000 000 annually). (Active practice 13.2 years: Res. Ch. 8.7). Refers to G. H. Biles, C. W. Erisman, H. E. Hilts, J. W. Hunter, P. M. Tebbs, W. A. Van Duzer.

VON MAUR, JACOB DANIEL—1017 Olive St., St. Louis, Mo.—(Age 52. Born Saugerties, N. Y.) (C. E., Lehigh Univ., 1894.)—1894 to 1898 (4 years) with Niagara Power & 152 Development Co., Modeltown, N. Y., East River Gas Co., New York City, Scranton Gas & Water Co., E. A. Bartle, Min. Engr., Scranton, etc.: 1898 to 1903 (5 years) Foreman, (14) special mains, Constr. Engr., etc., United Gas Improvement Co., Philadelphia: 1903 to date with Laclede Gas Light Co., 4 years as Supt. of Street Dept., in charge of all mains, services, paving work, etc.; past 16 years Supt. of Distribution, in charge of all gas distribution work from works to burner, including all meter work. (Active practice 29 years: Res. Ch. 25: Design 17). Refers to B. L. Brown, A. P. Greensfelder, F. G. Jonah, J. A. Ockerson, W. E. Rolfe, J. C. Travilla, E. E. Wall.

WANG, CHIH-HAN—2 South Clinton Ave., Trenton, N. J.—(Age 23. Born East Feng Tai, Chihli, China.) (C. E., Rens. Pol. Inst., 1923.)—June 1923 to date Detailer, American 153 Bridge Co., Trenton Plant. (Active practice 0.5 year). Refers to E. R. Cary, (4) T. R. Lawson, P. C. Ricketts, W. W. Rousseau, J. A. L. Waddell.

WANG, KUEI HSUN—Y. M. C. A., 2 South Clinton Ave., Trenton, N. J.—(Age 26. Born Canton, China.) (C. E., Rens. Pol. Inst., 1922.)—July 1922 to date Detailer, American 154 Bridge Co., on bridges, industrial and office buildings. (Active practice 1.5 years). (4) Refers to E. R. Cary, T. R. Lawson, P. C. Ricketts, W. W. Rousseau, J. A. L. Waddell.

WEBB, CHARLES GALLOWAY—P. O. Box 171, Oklahoma City, Okla.—(Age 24. Born Montague, Tex.) (B. S. in C. E., William Marsh Rice Inst., Houston, Tex., 1922.)— 155 Jan. to March 1919 Rodman, Ft. Worth & Denver City R. R.: March to Sept. 1919 Rodman and Chainman, City of Ft. Worth, Tex., on surveys, etc.: July 1922 to date (15) Designer or Detailer, Truscon Steel Co., designing, estimating and detailing reinforced concrete and all steel building products handled by the company (not including structural shapes). (Active practice 2.2 years: Sub-Prof. work 1.2: Prof. work 1: Design 0.5). Refers to W. T. Lyle, J. G. McKenzie, J. C. McVea, M. J. Reinhart, L. B. Ryon, Jr.

WHITE, HARRY LIVELY, Jr.—4 Severn Apartment, Norfolk, Va.—(Age 22. Born Norfolk, Va.) (C. E., Univ. of Va., 1923.)—June to Sept. 1917 Rodman, New York, Philadelphia 156 & Norfolk R. R., surveying, estimating, drafting, etc.: June to Sept. 1918 Draftsman, N. Y., P. & N. R. R., maps, track and yard layouts; station building design, estimating, (5) surveys, etc.: June to Sept. 1919 Transitman, U. S. Housing Corporation, Cradock, Va., on surveys, etc.: June to Sept. 1920 Chf. of Party, Virginia State Highway Comm.,

Richmond, Va., preliminary and final road surveys, inspection of reinforced bridge and culvert construction, estimates, topographical mapping: June to Sept. 1922 Inspector, City of Norfolk, supervision of dredging, soundings, estimates of mud in scows; Pile-Driving Inspector; Inspector of concrete and bituminous paving: June to Oct. 1923 Draftsman, Butler Belt Line Terminal, Norfolk, on design of wharves, pier and bulkhead; general drafting: Oct. 1923 to date Draftsman, Seaboard Air Line Ry. (Active practice 0.3 year). Refers to M. A. Butler, W. D. Faucette, E. A. Frink, J. O. Miller, W. M. Robinson, Jr.

WILHELM, FREDERICK EDWARD—1272 Washington St., Denver, Colo.—(Age 31. Born Holyoke, Mass.) (C. E., Rens. Pol. Inst., 1915.)—June 1915 to April 1916 on appraisal 157 work, Samuel M. Green Co., Springfield, Mass., tools, equipment, buildings and power rights: April 1916 to Dec. 1920 Timekeeper, Estimator, Structural Designer and Supervisor of Constr., Fred T. Ley & Co., Inc., Springfield, Mass.: Jan. 1921 to March 1923 Structural Designer, Supervisor of Constr., Casper Ranger Constr. Co., Holyoke, Mass.; May 1923 to date Chf. Engr. on construction of State Hospital and Medical School, Alex. Simpson, Jr., Co., Denver, Colo. (Active practice 8.3 years: Sub-Prof. work 1.6: Prof. work 6.7: Res. Ch. 6.2: Design 5.3). Refers to G. Borden, S. M. Green, W. P. Mason, S. W. Moore, P. C. Ricketts, R. G. Shankland, M. R. Sumner, G. S. Thompson.

WOLF, CHARLES HARRISON—3352 N. 34th St., Philadelphia, Pa.—(Age 34. Born Philadelphia, Pa.) (B. S. in C. E., Univ. of Pa., 1912.)—1911 (3 months) Statistician 158 with Ford, Bacon & Davis, compiling statistical records: July 1912 to Sept. 1917 Draftsman and Designer, and Jan. to July 1918 Designer, Dept. of City Transit, Philadelphia, (4) on subway and elevated railroad structures: Sept. 1917 to Jan. 1918 Civ. Engr. with John T. Windrim, Archt., on building design: July 1918 to June 1919 Civ. Engr. with Day & Zimmerman, on design of Quartermasters Terminal, Port of Philadelphia, in charge of form work: June 1919 to Jan. 1923 Civ. Engr. with Eugene S. Powers & Son, and Jan. 1923 to date member of firm, Eugene S. Powers & Son, Inc., Cons. Engrs. in charge of design and supervision of erection of buildings. (Active practice 10.5 years: Sub-Prof. work 0.3: Prof. work 10.5: Res. Ch. 4.5: Design 6.1). Refers to H. C. Berry, M. Golder, L. B. Manley, H. H. Quimby, T. N. Spencer, C. H. Stevens, W. S. Twining.

FOR TRANSFER

FROM THE GRADE OF ASSOCIATE MEMBER

BROWN, LEVANT, Assoc. M. Am. Soc. C. E.—Ross, Cal.—(elected Jan. 7, 1913.) (Age 39. Born Lafayette, Ind.) (B. S. in Civ. Eng., 1908, and C. E., 1914, Purdue Univ.)—159 Oct. 1908 to March 1918 Asst. and Dist. Engr., Bureau of Public Works, Govt. of Philippine Islands, Manila, on construction and design, supervising, first as Asst. Engr. (13) and later as Dist. Engr., expenditures totaling from \$200 000 to \$500 000 each year, work consisting of location, construction and maintenance of waterbound macadam and penetration asphalt highways, construction of timber truss and concrete arch bridges, installation of complete gravity water system, drilling artesian wells, sanitation, concrete school and market construction, warehouse construction on filled in ground requiring timber piling with concrete caps: July 1918 to Jan. 1919 Capt., Engrs., U. S. Army; 3 months at Student Officers' training camp, and 4 months Company Commander and Regimental Adjutant; March 1919 to date Senior Highway Engr., Dist. No. 2, Bureau of Public Roads, U. S. Dept. of Agriculture, in administrative charge of location, design and construction of graded roads through National Forests in California and Nevada (expenditure on work supervised average \$1 000 000 each year). (Active practice 14.9 years: Res. Ch. 10.8: Design 2.2). Refers to J. S. Bright, F. H. Fowler, D. E. Henry, L. I. Hewes, C. C. Morris, C. H. Sweetser.

COHEN, ABRAHAM BURTON, Assoc. M. Am. Soc. C. E.—1 Madison Ave., New York City—(elected July 2, 1913.) (Age 41. Born Chicago, Ill.) (B. S., 1905, and C. E., 1910, 160 Purdue Univ.)—June to Sept. of years 1902 and 1903 Rodman and Instrumentman with City Engr., East Chicago, Ind.: June 1905 to Sept. 1906 with Delaware, Lackawanna & (1) Western R. R., until Nov. 1905 as Draftsman, M. of W. Dept., on design of switches and crossovers; then (under Chf. Engr.) made studies, located on U. S. Geological Maps Stateford-Hopatcong Cut-Off across western half of New Jersey, made preliminary estimates of this work; last 8 months Chf. Draftsman locating part of cut-off line;

handled all office work, including final estimates, also substituted in various capacities in Field Corps: Sept. 1906 to Feb. 1907 Draftsman, Chicago, Indiana & Southern R. R.: March 1907 to June 1920 with D. L. & W. R. R. as follows: March to Nov. 1907 on office and field work; Nov. 1907 to May 1910 Designing Draftsman, reinforced concrete structures, Slateford-Hopatcong Cut-Off; designed Pequest R. double-barrel arch (two 20-ft. arches, under 110-ft. fill on earth foundation, reinforced concrete slab invert supports structure, cost \$135 000); assisted on design, Delaware River Viaduct and other structures of cut-off line; May 1910 to June 1920 Asst. Engr. in charge of design, principal design concrete bridge in grade-crossing elimination of Watsessing Depression, Bloomfield track elevation (cost of improvement \$700 000); made preliminary survey and estimate, Montclair (N. J.) Terminal Improvement, designed bridges for this improvement, (cost \$500 000); charge of design of all concrete structures, Clarks Summit-Hallstead Cut-Off West of Scranton, Pa., including Martins Creek Viaduct (3 tracks, 1500 ft. long, 150 ft. high, cost \$880 000), Tunkhannock Creek Viaduct (2 tracks, 2375 ft. long, 240 ft. high, ten 180-ft. arches, cost \$1 500 000), also sixty other minor structures on cut-off line; designed all concrete bridges in grade-crossing eliminations through Madison, South Orange and Orange, N. J., about twenty-five structures, including flat slab viaduct at South Orange; design of flat slab viaduct, Buffalo Terminal Improvement (covering 150-ft. by 1 000-ft. area, supports track and train-sheds, area under slab used for warehouse); designed approx. three hundred structures, all sizes and types: June 1920 to date Cons. Engr., prepared plans and supervised construction of Pine St. Bridge, City of Corning, N. Y. (cost \$300 000), and Harrison Ave. Bridge (200-ft. span, cost \$200 000), City of Scranton, Pa.; designed for Hudson County, N. J., reinforced concrete bridge plaza over Pennsylvania R. R. tracks, Summit Ave. Station, Jersey City, N. J. (approx. estimated cost \$1 500 000); prepared estimates and designed plant layouts, F. M. Talbot Contr. Co., grade-crossing eliminations, D. L. & W. R. R., through East Orange; Cons. Engr., B. L. Gabriel, Riverside Drive Memorial Bridge, Binghamton, N. Y. (Active practice 18.4 years: Sub-Prof. work 2.3: Prof. work 16.1: Res. Ch. 13.6: Design 16.5). Refers to L. Bush, B. H. Davis, W. K. Hatt, C. W. Hudson, C. A. Mead, J. H. Phillips, G. J. Ray.

DUNN, CHARLES PUTNAM, Assoc. M. Am. Soc. C. E.—923 Elec. Bldg., Portland, Ore.—(elected April 25, 1921.) (Age 37. Born Marcus, Iowa.)—1905–1907 and 1908–1909 161 student, Washington State Coll.: June 1903 to June 1909 (total over 2 years) miscellaneous engagements as Chainman, Rodman and Transitman on railway location and (12) construction, and hydro-electric construction: June to Aug. 1909 Asst. Engr. in charge of timber bridge construction, Vancouver, Victoria & Eastern Ry.: Aug. 1909 to March 1911 with U. S. Indian Service, 8 months as Secy. to Chairman of Appraising Comm., Coeur d'Alene Reservation, and 11 months in charge of land survey party, Yakima Reservation: March 1911 to May 1912 Instrumentman in charge of survey party, paving and sewers, City of Spokane, Wash.: May 1912–June 1913 with Great Northern Ry. as Asst. Engr., 2½ months in charge phone line and hotel building construction, Glacier National Park, 6 months on surveys for bridge renewals, 5 months on surveys for main line revision in Rocky Mts.: June 1913 to July 1914 and Aug. 1916 to June 1917 hydro-electric surveys and office work on preliminary design and estimates for G. N. Ry.: July to Aug. 1914 study of possibilities of irrigation by pumping, Central Washington: Aug. 1914–to Aug. 1916 in charge of field survey party, railway valuation, G. N. Ry.: June 1917 to June 1920 with Skinner & Eddy Corporation, Seattle, Wash., 1½ years on details of hull design and gun foundations, 1½ years in charge of fundamental design, lines, displacement and stability, etc.: June 1920 to Dec. 1922 with City of Seattle, on design of Skagit River hydro-electric development, nearly 1½ years on details of hydraulic and structural design, and remainder of time in charge of structural design: Dec. 1922 to date Designing Engr., Portland Ry., Light & Power Co., Portland, Ore., in charge of all design work. (Active practice 16.7 years: Sub-Prof. work 3.9: Prof. work 12.8: Res. Ch. 6.4: Design 7). Refers to O. S. Bowen, A. D. Butler, G. C. Mason, H. A. Rands, A. J. Turner, O. L. Waller, C. Wernecke.

GOODRICH, CLINTON RAYMOND, Assoc. M. Am. Soc. C. E.—Mann Bldg., Utica, N. Y.—(elected Oct. 29, 1912.) (Age 42. Born Minonk, Ill.) (C. E., Cornell Univ., 1905.)—162 July to Nov. 1905 Instrumentman, Illinois Central R. R.: Nov. 1905 to Aug. 1907 Asst. to Chf. Engr., Hudson River Elec. Power Co., Albany, N. Y., on power plant, substation (3) and transmission line design and construction and water-shed and right-of-way surveys: Aug. 1907 to Dec. 1908 Engr., Pittsburgh Eastern Co., on construction of Barge Canal locks and dams, Contr. No. 8, and estimates and property surveys: Jan. to March 1909

in retail lumber business at Minonk, Ill.: March to June 1909 miscellaneous work with Yavapi Consolidated Gold, Silver and Copper Co. at Crown King, Ariz.: June 1909 to Feb. 1910 Steel and Concrete Foreman, Brooks Gordon Constr. Co. and Reinforced Concrete Constr. Co., at San Antonio, Tex., and with James McGonegle & Sons at Galveston on reinforced concrete construction work: Feb. 1910 to Dec. 1915 with James Stewart & Co. as Supt. of Constr. in responsible charge of construction of roundhouse and miscellaneous construction work at Glidden, Tex., library building, Univ. of Texas, at Austin, Tex., concrete barns for Ft. Worth (Tex.) Stockyards Co., residential halls and physical laboratory building, Rice Inst., Houston, Tex., warehouse and office building for Gordon Sewall Co., power house for S. P., Queen Theatre and office building at Houston, Boatmen's Bank Bldg. at St. Louis, Mo., factory buildings for Remington Arms & Ammunition Co. at Ilion, N. Y.: Dec. 1915 to Jan. 1922 Chf. Engr. in charge of Bldg. Dept. and concrete road construction, Dale Eng. Co., Utica, N. Y., on design of reinforced concrete mill buildings and other structures: Jan. 1922 to date Commr. of Public Works, City of Utica. (Active practice 18.4 years: Res. Ch. 13.9: Design 4.2). Refers to F. A. Barnes, H. R. Beebe, C. Lewis, Jr., A. O'Brien, H. V. Owens, C. E. Parsons, B. E. White, G. S. Williams.

HYATT, EDWARD, Jr., Assoc. M. Am. Soc. C. E.—2435 Portola Way, Sacramento, Cal.—(elected Oct. 11, 1920.) (Age 35. Born San Jacinto, Cal.) (A. B. in Civ. Eng., 1912, 163 and Engr., 1920, Leland Stanford Univ.)—April 1908 to Feb. 1909 Rodman and Draftsman, and April to Oct. 1909 and May to Aug. 1911 Jun. Topographer, U. S. Geological (13) Survey: July 1912 to July 1914 Irrigation Engr., San Joaquin Light & Power Co., Fresno, Cal., in charge of engineering on two large irrigation developments (20 000 acres); San Joaquin Valley, Mgr. of one; construction of irrigation systems and development of underground water: Oct. 1914 to Feb. 1916 Asst. Res. Engr., California Highway Comm., office and field work in connection with location and construction of main highways and laterals: March 1916 to date with California State Water Comm. and Div. of Water Rights (successor to Water Comm.) in various capacities; from March 1916 to March 1917 Field Engr. on investigation of applications to appropriate water; March 1917 to June 1920 Res. Engr. on hydrographic investigations on Alameda Creek, one source of water supply, San Francisco; technical ascertainment of all factors involving water rights (value over \$20 000 000); stream measurement; measurement of all known drafts on underground water and complete analysis and precise determination of total recharge and draft, balance of one against the other over cyclic period, and development of formula for percolation; June 1920 to Aug. 1922 Office Engr., State Water Comm., immediate direction of office personnel and work in connection with water applications and general executive charge engineering offices of commission; since Aug. 1922 Deputy Chf., Div. of Water Rights, direction of all engineering work of division involving supervision of initiation, adjudication and administration of water rights in California; executive charge, Division offices. (Active practice 13 years: Sub-Prof. work 2.5: Prof. work 10.5: Res. Ch. 9.8: Design 0.6). Refers to T. G. Gerdine, C. E. Grunsky, W. L. Huber, H. A. Kluegel, C. H. Lee, H. D. McGlashan, C. D. Marx, A. L. Sonderegger.

NOETZLI, FRED ADOLPH, Assoc. M. Am. Soc. C. E.—1100 Santa Fe Bldg., San Francisco, Cal.—(elected Nov. 25, 1919.) (Age 35. Born Hoengg, Switzerland.) (C. E., 1911, and 164 D. S., 1913, Swiss Federal Pol. Inst., Zurich.)—July to Nov. 1911 Topographer, survey of Swiss National Park: Nov. 1911 to Jan. 1914 Instructor in Civ. Eng., and May to (13) Sept. 1915 Prof. in Chg., Swiss Federal Polytechnic Inst.: March to Aug. 1914 and Jan. to April 1915 Designing Engr., reinforced concrete structures, Societa Italiana Ferrobeton, Rome, Italy: Feb. to June 1916 Instructor, Civ. Eng. Dept., Lehigh Univ., Bethlehem, Pa.: July 1916 to Feb. 1917 Res. Engr., reinforced concrete construction, water-works, etc., C. C. Hopkins, Cons. Engr., Rochester, N. Y.: March to Sept. 1917 Designing Engr. and Supt. of Constr., reinforced concrete structures, A. E. Sedgwick, Cons. Engr., Los Angeles, Cal.: Dec. 1917 to May 1918 Engr., Bridge and Bldg. Dept., Pacific Elec. Ry. Co., Los Angeles, Cal.: June to Sept. 1918 with Moore Shipbuilding Co., Oakland, Cal.: Oct. 1918 to June 1922 Chf. Engr., Beckman & Linden Eng. Corporation, San Francisco, Cal., on irrigation and hydro-electric power developments in California and Arizona; in charge of surveys, diamond drill borings and design of works for Paradise Verde Irrigation Dist. in Arizona (\$15 000 000 project, 100 000 acres, 300-ft. arch dam and 210-ft. multiple arch dam; 20 000-h. p. hydro-electric power as by-product); investigation and report on 100 000-h. p. development on Colorado River: July 1922 to May 1923 Chf. Engr. with Bissell & Slinnicks, Inc., San Francisco, Cal., on

design of improved type of high multiple arch dams for various irrigation and power projects; Cons. Engr. for design and construction of Mallbou Lake Dam, reinforced concrete arch; power plant and electric railway system for City of Harbin, China; in charge of surveys and preliminary investigation for San Francisco Memorial Bridge: since 1922 also Secy., Comm. on Arch Dam Investigation, Eng. Foundation: June-Aug. 1923 research work and private practice: Sept. to Nov. 1923 checking structural designs of proposed Al Malaikah Temple, Los Angeles, involving reinforced concrete roof arches of nearly 200-ft. spans, J. C. Austin, Archt.: since Dec. 1923 Cons. Engr., especially on dams. (Active practice 11.6 years: Res. Ch. 7.7: Design 2). Refers to O. H. Ammann, R. M. Beanfield, R. J. Fogg, J. M. Howells, M. R. Kays, F. P. McKibben, A. L. Sonderegger.

PAYROW, HARRY GORDON, Assoc. M. Am. Soc. C. E.—Bethlehem, Pa.—(elected Junior Feb. 4, 1908; Assoc. M. Dec. 3, 1913.) (Age 42. Born Lynn, Mass.) (B. S. in Civ. Eng., Tufts Coll., 1907.)—1904 to 1907 (part of time, mostly summers) Rodman, Transitman, sewer and lot surveying, City of Lynn, Mass.: July 1907 to Jan. 1908 (4) Inspector, sewage-disposal plant, and Jan. 1908 to Sept. 1911 Asst. Engr., investigations and construction of \$1 500 000 earth dam, City of Waterbury, Conn.: Sept. 1911 to July 1913 Instructor, Tufts Coll.: July 1913 to July 1914 Res. Engr., \$800 000 earth dam, City of Lynn, Mass.: July 1914 to Sept. 1916 Engr. and Treasurer, Mayo Constr. Co., Lynn: Sept. 1916 to date Asst. Prof., Civ. Eng. Dept., Lehigh Univ.: 1916 to 1922 (2 years) consulting work for various boroughs on highways, sewers and water supplies (\$500 000): April to Sept. 1918 Engr., U. S. Public Health Service in charge of malarial control at Camp Merritt: registered Professional Engr. and Land Surveyor, State of Pennsylvania. (Active practice 17.2 years: Sub-Prof. work 1.3: Prof. work 15.9: Res. Ch. 9.8: Design 3.1). Refers to S. A. Becker, R. J. Fogg, E. H. Rockwell, F. B. Sanborn, W. L. Willson.

RAWN, A M, Assoc. M. Am. Soc. C. E.—P. O. Box 74, Spokane, Wash.—(elected June 19, 1922.) (Age 35. Born Dayton, Ohio.)—1907 to 1909 (2 years) Chairman, Rodman, 166 Transitman and Inspector, Illinois Central R. R. Co., on location and construction of roadbed and bridges, construction of yard terminals, New Orleans, Inspector on K. & E. (12) R. R. electrification, Chicago: 1911 to 1912 (1 year) Surveyman, Chf. of Party and Draftsman, U. S. Reclamation Service, topographical survey, Yakima Project, Camp Draftsman, Boise Project, maps, profiles and design of minor structures: Aug. 1913 to Aug. 1914 Draftsman, M. of W. Dept., Spokane, Portland & Seattle Ry. Co., Portland, Ore., yard layout, maps and profiles, design of minor structures: Aug. 1914 to March 1918 with U. S. Reclamation Service, until Nov. 1917 as Surveyman, Asst. Engr. and (last 6 months) Irrigation Mgr., Salt River Project, Ariz., on location and construction of canal and lateral system; then Asst. Engr., King Hill Project, Idaho, on location and construction of concrete flumes, earth canal and laterals, estimates and design of construction plant and minor structures: March 1918 to June 1919 with U. S. Army, until May 1918 as Private and Corporal, 319th Engrs., Camp Freemont, Cal.; then 2d Lieut. and 1st Lieut., 605th Engrs., 8 months foreign service, on construction of roads, hangars, and permanent camps: June 1919 to July 1922 with U. S. Reclamation Service, King Hill Project, until Dec. 1919 as Asst. Engr. on location, design and construction of concrete flumes, estimates, design of plant and forms and of minor structures; then Engr., Div. Engr. and Irrigation Mgr., design and construction of concrete and wood stave pipes, concrete flumes, earth canal and laterals, also charge of operation and maintenance of project: July 1922 to Sept. 1923 Project Mgr., U. S. Reclamation Service and Bureau of Reclamation, King Hill Project, design and construction of concrete pipelines, construction of concrete and metal flumes, small direct pumping units, canal and lateral system, operation and maintenance of project (expenditure approx. \$500 000): Sept. 1923 to date Engr., U. S. Bureau of Reclamation, Columbia Basin investigation, Spokane, Wash., estimate and preliminary design and layout of Columbia Basin Project Canal and lateral system, pumping and gravity. (Active practice 13.7 years: Sub-Prof. work 2.2: Prof. work 11.5: Res. Ch. 6.7: Design 4.5). Refers to H. J. Gault, C. H. Howell, J. Munn, E. C. Pantan, W. Ward, F. E. Weymouth.

ROBY, HARRISON GEORGE, Assoc. M. Am. Soc. C. E.—11142 S. Irving Ave., Chicago, Ill.—(elected May 31, 1916.) (Age 41. Born Portland, Ore.) (B. S., Dartmouth Coll., 1894; C. E., Thayer School of Civ. Eng., 1908.)—Oct. 1904 to Aug. 1905 Chairman and Rodman, Chicago & North Western Ry.: April to Sept. 1906 Instructor, Thayer School of

- (8) Civ. Eng. and Dartmouth Coll.: Sept. 1906 to Jan. 1908. Chf. of Party, transmission line surveys, McCall Ferry Power Co., Pa.: June 1908 to Nov. 1912 Asst. to D. W. Mead, Cons. Engr., in charge survey parties on design, water-power plants, Res. Engr. in charge of construction, Supt. of Constr.: Nov. 1912 to June 1914 Supt. of Constr. on 6 000-h. p. plant for Oliver Iron Min. Co. near Iron Mountain, Mich.: June 1915 to April 1916 designed and built storage and power dams for Fletcher Paper Co., Alpena, Mich.: April 1916 to March 1918 City Mgr. of Alpena: March 1918 to June 1919 Lieut. and Lieut. Commander, Civ. Engr. Corps, U. S. Navy; Asst. Officer in charge construction Army and Navy Office Bldgs., Washington, D. C.; Public Works Officer, Quantico Marine Barracks, Va., designed and built water supply; in charge extension to camp; Asst. Public Works Officer for Fourth Naval Dist., Philadelphia, Pa.; in charge of thirty-two contracts amounting to \$8 000 000: June 1919 to June 1920 Gen. Mgr., Nugent Constr. Corporation, in charge of purchasing and subcontracts: June 1920 to July 1921 Prin. Asst., International Joint Board of Engrs., on investigation of improvement of St. Lawrence River (estimated cost \$258 000 000): Feb. to Sept. 1922 Prin. Asst. to L. F. Harza, on design of 8 000-h. p. plant on Flambeau River, Wis.: Sept. 1922 to date Hydr. Engr. with Byllesby Eng. and Management Corporation. (Active practice 16.3: years: Sub-Prof. work 0.8: Prof. work 15.5: Res. Ch. 12.3: Design 3.6). Refers to L. F. Harza, J. W. Link, D. W. Mead, O. A. Mechlin, A. F. Meyer, F. G. Ray, C. V. Seastone, F. C. Shenhon, S. W. Tarr, A. A. Welland, W. P. Wooten.

- STURDEVANT, JAMES HIRAM, Assoc. M. Am. Soc. C. E.—114 Market St., Poughkeepsie, N. Y.—(elected Oct. 1, 1912.) (Age 41. Born Norwich, N. Y.) (C. E., Cornell Univ., 1895.)—July to Sept. 1902, April to Sept. 1903, and July to Oct. 1904 Chairman and Rodman, New York State Eng. Dept., on highway work, inspection and construction: (3) part of winter 1904 and 1905 in Barge Canal Office, Albany, designing canal structures and layout: June to Oct. 1905 Rodman in charge of, and Oct. 1905 to Feb. 1906 making surveys on, highway contracts; and Feb. and March 1906 making surveys for Barge Canal Dept., New York State: March 1906 to Dec. 1907 Asst. Engr. in charge of survey for New York State Eng. Dept.; Dec. 1907 to Feb. 1909 Asst. Engr. in charge of all road construction in Sullivan County during working season and during winter designing roads: Feb. to June 1909 and Nov. 1909 to March 1910 Asst. Engr. in Barge Canal Office designing canal structures: June to Nov. 1909 in charge of survey for Seneca Canal: March 1910 to Dec. 1911 Asst. Engr. in charge of maintenance of state and county highways, Div. No. 3 (6 counties), and Dec. 1911 to Dec. 1912 Div. Engr. in charge of construction and maintenance, Div. No. 3, for New York State Highway Comm.; Dec. 1912 to March 1913 Acting First Deputy, and May to July 1913 Acting Second Deputy, New York State Highway Dept., in charge of road maintenance: March to May 1913 Acting Supt. of Highways in charge of all construction and maintenance work, New York State Highway Comm.: since July 1913 Div. Engr. in charge of maintenance, construction and designing, New York State Highway Dept., until Feb. 1918 of all roads in Div. No. 3, and since then of state and county highways in Div. No. 1 (ten counties, from Albany to end of Long Island on both sides of Hudson River); supervised special work including Storm King Mountain contract, Rondout Creek Bridge, Palmville Clove Road; at present on mid-Hudson Bridge at Poughkeepsie; prepared Pipe-Line Boulevard across Kings, Queens and Nassau Counties. (Active practice 17.7 years: Prof. work 17.7: Res. Ch. 16.8: Design 4.4). Refers to H. K. Bishop, R. F. Hall, C. MacDonald, A. O'Brien, J. A. O'Connor, F. N. Sanders, B. H. Walt.

- VAN WAGENEN, JAMES HUBERT, Assoc. M. Am. Soc. C. E.—2001 Sixteenth St. N. W., Washington, D. C.—(elected April 1, 1914.) (Age 42. Born Corning, Iowa.) (B. S. in C. E., Univ. of Mo., 1908.)—June 1903 to Sept. 1904 and summers 1905–1907 Supt. of Constr., building about 150 miles of toll lines and two telephone exchanges in southwestern Iowa: June to Nov. 1908 design and construction of telephone exchange (\$25 000) for Corning (Iowa) Telephone Co.: Nov. 1908 to April 1909 Prin. Asst. to Cons. Engr. on appraisements, valuations and reports on twenty-seven telephone exchanges of Interstate Telephone & Telegraph Co., Aurora, Ill., in various cities in Illinois: May to Oct. 1909 Jun. Topographer, Topographic Branch, U. S. Geological Survey: Nov. 1909 to March 1910 in private practice, work included several small topographic surveys in southwestern Iowa, and special litigation work for Chicago, Burlington & Quincy Ry., Expert Witness in two cases: March to June 1910 Asst. Engr., Illinois Highway Comm., on road surveys, design of reinforced concrete bridges, including a 195-ft. viaduct: June 1910 to June 1915 Prin. Asst. to Chf. Engr., International Boundary Comm., United States and Canada, topographic surveys, triangulation, leveling,

reconnaissance, monumenting, official maps and final reports; in charge of parties on 49th parallel and on Lake of the Woods and Rainy Lake: June 1915 to date Chf. Engr., U. S. Sec., International Boundary Comm., United States and Canada, in direct charge of all field and office work of the Commission under provisions of treaties of 1903, 1906 and 1908 between the United States and Great Britain. (Active practice 16.9 years: Res. Ch. 16.9: Design 15.7). Refers to J. S. Conway, J. C. Hoyt, A. L. Hyde, A. N. Johnson, M. O. Leighton, W. E. Parker, D. L. Reaburn, T. Riggs, E. F. Wendt.

VOGEL, JOSHUA HOLMES, Assoc. M. Am. Soc. C. E.—Ww 11 Museum Rd., Shanghai, China—(elected Sept. 11, 1917.) (Age 35. Born White Lake, S. Dak.) (B. Arch., 1912, 170 and M. Arch., 1918, Ohio State Univ.)—April to Oct. 1912 Engr. for E. Elford, Contr. and Engr., Columbus, Ohio, acted as Designer (3 months) and on field work (3 months), (1) on erection of reinforced concrete warehouse, Marlon, Ohio; later on field work on King Ave. Bridge, Columbus, also reinforced concrete: Nov. to Dec. 1912 Draftsman with Mills, Rhines, Bellman & Nordhoff, Archts., Toledo, Ohio: Jan. 1913 to May 1917 Archt. and Engr.; Vice-Pres., W. M. Vorles & Co., Archts., Omi, Hachiman, Japan; designed and superintended construction of buildings, also private sewage-disposal plants; completed nine large buildings (five fireproof); about twenty-five churches, chapels, schools, etc., erected; repaired earthquake-damaged buildings 1915 Akita Earthquake: May to Oct. 1917 vacation, travelling in United States for data on small sewage-disposal plants and building construction: Oct. 1917 to June 1918 post-graduate research work in engineering, Ohio State Univ.: June 1918 to July 1919 Archt. and Engr. for National War Work Council, Y. M. C. A., design and construction buildings, eight western states, camps and colleges, built one reinforced concrete 4-story unit of 7-story building at Bremerton, Wash.: July 1919 to March 1921 member of firm, Baker, Vogel, Evans & Roush, Archts. and Engrs., Seattle, Wash., designed and superintended construction of three fireproof buildings (\$150 000 each), eight brick, stone and timber churches (\$30 000 to \$150 000 each): March 1921 to date Archt.-Engr. for Board of Foreign Missions, Methodist Episcopal Church in China, Yangtze River Area chiefly, has completed about \$500 000 worth of buildings (fireproof, etc.); has finished preliminary sketches (value \$997 500); has designed and finished working drawings for buildings (value \$286 100); has also designed some buildings (value \$735 400) at present under way and has charge of these; this work includes work of other clients in China. (Active practice 11.2 years: Res. Ch. 10.1: Design 10.2). Refers to H. Berents, G. C. Haun, K. Y. Kwong, L. F. Patstone, E. A. Silagi, E. C. Stocker, O. J. Todd, P. P. Whitham, T. C. S. Yen.

WHEAT, THOMAS EDWARD MOSS, Assoc. M. Am. Soc. C. E.—306 Murphy Bldg., Detroit, Mich.—(elected March 7, 1921.) (Age 32. Born Starbuck, Wash.) (B. C. E., Univ. 171 of Mich., 1914.)—Sept. 1914 to March 1916 Asst. Civ. Engr., Designing Div., Bureau of Public Works, Manila, Philippine Islands, on design and detail of highway bridges of (7) concrete, steel and wood; with subaqueous foundations; Res. Engr. on erection of Cafiacao Radio Station for U. S. Navy: April 1916 to Feb. 1918 Structural Draftsman and Designer with Smith, Hinchman & Grylls, Archts. and Engrs., Detroit, on design of building frames of all types, including foundations for Standard Warehouse (6 stories) and Crowley-Milner Warehouse (13 stories) (latter not built): Feb. 1918 to May 1919 Production Engr., Div. of Mil. Aeronautics, U. S. Army, on design, erection, production and shipping of all-steel hangar buildings, in Washington, Pittsburgh, New York, etc.; from Jan. to May 1919 Chf. Engr. of section: May 1919 to Feb. 1921 Structural and Civ. Engr. with Smith, Hinchman & Grylls, on design of heavy concrete structures, such as Harvey Bros. Warehouse (6 stories, concrete frame), foundry building for Detroit Shipbuilding Co. and as Field Engr. for Archt. on town layout of Marysville, Mich., involving topographic map of 5 200 acres and harbor line survey of 5½ miles of St. Clair River; also Archt.'s Supt. on four buildings at Buhl Malleable Foundry (\$225 000): Feb. 1921 to date in private practice at Detroit and Flint, part of time with an architect in firm of Wright & Wheat, on design and supervision of about \$1 000 000 worth of building projects, including \$400 000 Nurses Home for Hurley Hospital, Flint, numerous buildings at plant of J. C. Widman Co. in Detroit, and on subdivision layout work in Flint of some 1 500 acres for Gen. Motors Corporation and others, including grading and vacating eleven old plats; at present on committee of five rewriting Flint Building Code. (Active practice 9.3 years: Sub-Prof. work 2.6: Prof. work 6.7: Res. Ch. 6.7: Design 5.5). Refers to G. B. Canaga, C. W. Hubbell, G. A. Meade, D. A. Mollitor, H. E. Riggs, G. S. Williams.

FROM THE GRADE OF JUNIOR

CLAUSSEN, THOMAS HIBBEN, JUN. AM. Soc. C. E.—Bureau of Reclamation, Yuma, Ariz.—(elected Nov. 25, 1919.) (Age 31. Born Sausalito, Cal.)—3 years student, Civ. 172 Eng. course, Leland Stanford, Jr., Univ.: 1914 to 1916 (part of time while student, total 1 year) Draftsman, Town of Sausalito, Cal., road and sewer plans, estimates and (11) construction: 1917 (3 months) Draftsman and Instrumentman, general work on water supply, Spring Valley Water Co.: 1917 to 1918 (over 1 year) Sgt., Intelligence Sec., 363d Inf., 2d Lieut., 50th F. A.: 1919 Copyist Draftsman, Gorham Eng. Co., San Francisco, Cal., machine design (3 months); Copyist Draftsman, raisin drying plants, Hunter & Hudson, Cons. Engrs. (3 months): Aug. 1919 to date with U. S. Reclamation Service as follows: Aug. 1919–May 1920 Jun. Engr., farm unit platting; June–Oct. 1920 Asst. Engr. in charge of silt survey, Elephant Butte Reservoir; Nov. 1920–Dec. 1921 Asst. Engr., Chf. Hydrographer, Rio Grande Project; Jan.–Oct. 1922 Asst. Engr., Field and Office Asst., measurement of water surface curve, standing wave and upward pressure Percha Wier, consumptive use of water, Rio Grande Project, stress determination, Elephant Butte Dam, and effect of backwater from Elephant Butte Reservoir; since Oct. 1922 Asst. Engr., Asst. on report on flood control, Lower Rio Grande Valley, hydrologic compilations, drafting and instrument work (6 months); Asst. on report on irrigation of Hope Community from Penasco River, reconnaissance survey and office work (4 months); and Asst. on report on tri-county project, Nebraska, preliminary surveys and office work; since Nov. 1923 Asst. Engr., Chf. of Party, Yuma Project, Ariz. (Active practice 7.1 years: Res. Ch. 3.7: Design 0.7). Refers to I. E. Flaa, L. L. Hohl, L. M. Lawson, C. D. Marx, E. E. Teeter.

FELD, JACOB, JUN. AM. Soc. C. E.—1077 East 12th St., Brooklyn, N. Y.—(elected June 19, 1922.) (Age 25. Born Rzeszow, Galicia, Poland.) (B. S., Coll. of City of N. Y., 173 1918; M. A. and C. E., 1921, and Ph. D., 1922, Univ. of Cincinnati.)—Aug. to Oct. 1917, and Jan. to April 1918 Jun. Asst., Public Service Comm., New York City, Rodman (3 months), Instrumentman and Computer (3 months): May 1918 to April 1919 Topographic Draftsman, Valuation Dept., Erie R. R., New York City on valuation maps, layout, estimate, etc.: April to Sept. 1919 Chf. of Party, Highway Dept., Borough of Queens, New York City, in charge of preliminary location, layout, estimate, etc., of streets and roads: Sept. 1919 to June 1921 Asst. Instructor and Research Fellow in Civ. Eng., Univ. of Cincinnati, in charge of cement and concrete laboratory work, concrete research work of 4th year students, design of apparatus for various research problems, in charge of and conducting tests on earth pressure: July to Sept. 1921 Asst. on various work for D. B. Steinman and C. E. Fowler, New York City, design, detail and computations for Detroit-Windsor Bridge, etc.: Sept. 1921 to June 1922 Instructor in Mathematics and Eng., Ohio Mechanics Inst., Cincinnati, in charge of classes in mechanics and design; Research Fellow in Civ. Eng., Univ. of Cincinnati: July 1922 to May 1923 Detailer and Designer, Turner Constr. Co., New York City, on layout, detail and estimate of reinforced concrete industrial structures, buildings, tanks, bins, etc.: May to Aug. 1923 Bridge Designer, Long Island R. R., Jamaica, N. Y., on abutments, walls, bridges, etc., for Queens Elimination, etc.: Aug. 1923 to date Designing Engr. for D. B. Steinman, in charge of design of substructure for Carquinez Strait Bridge, Cal.; design of other substructure and concrete work, investigation of strength of tanks, preliminary bridge studies, etc.: since Sept. 1923 also for Henry Goldmark, Cons. Engr., on mathematical analysis and design of 1 000-ft. radio tower and antenna system of radio station of Federal Telegraph Co. of Delaware. (Active practice 6.1 years: Sub-Prof. work 1.4: Prof. work 4.7: Res. Ch. 3.9: Design 2.7). Refers to F. Auryansen, R. A. Cummings, H. Goldmark, W. E. Joyce, G. Paaswell, H. D. Robinson, H. Schneider, D. B. Steinman, A. W. Stephens.

FREEMAN, VERNON MARION, JUN. AM. Soc. C. E.—Box 732, Santa Paula, Cal.—(elected Aug. 9, 1920.) (Age 31. Born Kansas City, Mo.)—April 1910 to Feb. 1914 Rodman, 174 Chainman and inspection work under City Engr., Riverside, Cal.: Feb. 1914 to July 1916 Transmittan, Riverside County Highway System: July 1916 to March 1918 Res. (11) Engr. on location and construction of Ventura County Highway System: March 1918 to May 1923 Engr. in charge of improvements and new work for Farmers Irrigation Co., Thermal Belt Water Co., Santa Paula Water Co., and Limoneira Co., Santa Paula, Cal., and May 1923 to date Mgr. of first three companies, and Engr. in charge of development of 500 acres of citrus land for Limoneira Co. (Active practice 13.3 years: Sub-Prof. work 3.6: Prof. work 9.8: Res. Ch. 7.4). Refers to S. G. Bennett, A. C. Hardison, H. E. Lowe, C. W. Petit, J. A. Trudeau.

GORNTON, EARL DOUGLAS, JUN. AM. Soc. C. E.—1109 Huntington Crescent, Norfolk, Va.—(elected Nov. 21, 1921.) (Age 31. Born Norfolk, Va.)—Oct. 1912 to May 1917 with Virginia Ry. & Power Co., Norfolk, Va., until Dec. 1914 as Chairman (3 months), Rodman (1 year) and Instrumentman (1 year); from Jan. 1915 to July 1916 Chf.

(5) Draftsman, designed wooden bridges, made drawing for special work, bridge repairs, etc.; and after July 1916 Acting Asst. Engr., N. H. O. Divs., operating 150 miles, has supervision over Roadmaster, handled routine of maintenance-of-way work: May 1917 to Dec. 1918 at 1st Officers' Training Camp, Ft. Myer, Va.; Aug. 1917 commissioned 2d Lieut., F. A., U. S. Army, with 314th F. A. and 19th Regt., F. A. R. D. Staff; finally Asst. Personal Adj.: Jan. 1919 to date with Virginia Ry. & Power Co., 2 years as Engr. in charge of construction, rerouting in Berkley and Norfolk, Va., giving grades, alignments, locations, special work, record by progress maps of excavation, track-laying, concrete yardage, welding and bonding (expenditure on this construction \$728 541); since Jan. 1921 Asst. Engr. M. of W., on surveys, estimates, track construction in paved streets, bridge design, track layouts, supervision of maintenance and construction in Norfolk, Portsmouth and Berkeley, Va. (Active practice 9.6 years: Res. Ch. 5.9). Refers to L. B. Allen, C. G. Benham, L. S. Cowles, H. Frazier, A. W. Kreamer, W. Mahone, Jr., J. D. Waldrop.

GREENE, BARCLAY ADAMS, JUN. AM. Soc. C. E.—114 W. 10th St., Kansas City, Mo.—(elected Nov. 21, 1921.) (Age 28. Born Washington, D. C.)—May 1912 to Oct. 1914

176 with James Lee Darnell, 8 months as Timekeeper and Material Clerk and 1 year Purchasing Agt. and Cost Accountant on viaduct construction, and 2½ years Cost Account-

(14) ant and Asst. Supt. on cement-gun encasement steel bridges: 1915 (1 year) Cost Accountant, Purchasing Agt., Asst. to Supt., etc., on reinforced concrete building construction and viaducts: Jan. to May 1916 Asst. to Gen. Supt., Research Hospital, Kansas City, Mo., reinforced concrete construction: May 1916 to March 1917 with Kansas City (Mo.) Stock Yards Co., 4 months as Gen. Reinf. Steel Foreman, building construction, then 3 months Asst. Purchasing Agt., Bldg. Dept., and Dec. 1916 to March 1917 Chf. Clerk, Eng. Dept.: March to June 1917 Sales Engr., Cement Gun Co., Inc., Allentown, Pa.: June 1917 to date Mgr., Cement-Gun Dept., Pratt-Thompson Constr. Co., Kansas City, responsible charge as head of department, operating ten complete cement-gun outfits, estimating and contracting cement-gun construction, designing various cement-gun or Gunitite roofs, walls, slabs, linings and repairs. (Active practice 10.7 years: Sub-Prof. work 3.2 Prof. work 7.4: Res. Ch. 0.4). Refers to O. P. Allee, W. L. Benham, B. C. Collier, J. L. Darnell, A. C. Everham, J. V. Hanna, B. M. Hart, J. B. Hawley, E. J. Straub.

The Board of Direction will consider the applications in this list not less than thirty days after the date of its issue.